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ABSTRACT

Data from a variety of sources are presented to identify and outline issues associated with the recruitment, retention, and progress of women psychologists in their careers in academe. Women earned approximately two-thirds of the 1997 doctorates in psychology, and today they make up about 4 in 10 of the full-time psychology faculty in a four-year institution. However, women are substantially less likely to have tenure; 30% of women faculty are tenured, compared with 52% of men. Nonsupportive institutional climate continues to be a critical issue at departmental and college/university levels. Women have excelled as teachers of psychology, but some still experience bias in the evaluation of their teaching or lack of support for teaching. Women are making substantial contributions to psychological research, but continue to meet career obstacles. Women faculty, especially women of color, tend to be overburdened with service obligations such as excessive advising or committee loads. Findings also show that underrepresentation of ethnic minorities continues to be a severe problem and a barrier to the full participation of women psychologists in academe. Recommendations are made to improve climate, compensation, and accountability for women psychologists in academe. (Contains 21 tables and 188 references.) (SLD)

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ED 451 745

REPORT OF THE TASK FORCE ON WOMEN IN ACADEME AMERICAN PSYCHOLOGICAL ASSOCIATION

WOMEN IN ACADEME: TWO STEPS FORWARD, ONE STEP BACK

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WOMEN IN ACADEME: TWO STEPS FORWARD, ONE STEP BACK

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I. Executive Summary

Status of Women in Academia

Times have changed for women in psychology. Or have they? Women earned approximately two-thirds of the 1997 doctorates in psychology and today make up about 4 out of 10 of the full-time psychology faculty in 4-year institutions. Clearly women in psychology have made it above the bottom rung of the academic ladder. But how far have they really progressed? The Task Force on Women in Academe was established by the American Psychological Association (APA) to delineate and evaluate issues associated with recruitment, retention, and progress of women psychologists throughout their careers in academe. Highlights of task force findings are as follows:

- Women are participating in psychology at dramatically higher rates. Women received 23% of U.S. doctorates from 1920 to 1974, 33% in 1976, 51% in 1986, and 66% in 1996.
- Women now make up 39% of the full-time psychology faculty in 4-year institutions and 49% of new hires. Yet women are substantially less likely to have tenure: 30% of women faculty are tenured, compared with 52% of men.
- Nonsupportive institutional climate continues to be a critical issue, both at the departmental and at college/university levels.
- Overt sexism has been replaced by more subtle sexism. Stereotyping processes may influence the evaluation of women as leaders, researchers, and teachers.
- Women have excelled as teachers of psychology, as evidenced by national awards and local evaluations. At the same time, some women experience bias in the evaluation of their teaching or lack of support for teaching.
- Women are making substantial contributions to psychological research, as evidenced by authorship of articles in APA journals, editorships of APA journals, securing of federal grant funds, APA awards for Early Career Contributions, and APA awards for Distinguished Scientific Contributions. However, continuing obstacles to women as researchers include inequitable start-up packages for newly hired faculty and bias in evaluating certain types of research, for example, research on gender, race/ethnicity, and sexual orientation.
- Women faculty, and especially women of color, tend to be overburdened with service obligations such as excessive advising or committee loads. At the same time, certain kinds of committee work can be an avenue into administrative roles—such as department chair, dean, or provost—that carry crucial decision-making responsibility, and women are underrepresented in these positions.
- Underrepresentation of ethnic minorities continues to be a severe problem, and unless ethnic minority issues are addressed, full participation of women psychologists in academe cannot be achieved.

Recommendations in Brief

Recommendation 1: Climate
Each institution and department of psychology should examine its climate for women faculty. Is mentoring provided for all junior faculty? Do women faculty have research space adequate to meet their needs and equal to that of men? Are women and people of color represented sufficiently among the faculty and at all ranks? Is there a sexual harassment policy? Are family friendly policies in place, such as parental/family leave and on-site child care? Climate issues should be examined and addressed at all levels; some are departmental, while others are institution-wide.

Recommendation 2: Compensation
Departments and colleges/universities should examine compensation (defined broadly) for gender equity. Each institution should do a salary study, using multiple regression techniques, to determine whether there is a gender gap in total income and, if so, should correct it. Starting salaries should be checked for gender equity and, thereafter, monitored continuously. Women may be less willing to play the "outside offer" game; has a gender disparity emerged because of outside offers? Is summer salary allocated equitably?

Recommendation 3: Accountability
All administrators, especially department chairs and deans, must be held accountable for gender equity and climate in their units. Those who fail to make the corrections necessary for gender equity should be given feedback, and their effectiveness in correcting these problems should be reflected in compensation. If necessary, ineffective administrators should be replaced.

Recommendation 4: Teaching
Departments and colleges/universities should provide women faculty with equitable support for teaching. Is mentoring for teaching available? Is there equal access to teaching assistants? Is a reduced teaching load for new faculty available to allow them time to prepare new courses? Are teaching loads assigned equitably, in terms of number of preparations and choice of courses? Methods of teaching evaluation should be examined for gender fairness. As a principle of academic freedom, women faculty should be able to teach about women if they so choose, without penalty in their personnel evaluations.

Recommendation 5: Research
Departments and colleges/universities should provide women faculty with equitable support for their research, including start-up packages, lab space, funding for research assistants, equal access to internal funding for research, and protected time for research. As a principle of academic freedom, women faculty should be able to do research on women, gender, sexual orientation, or race/ethnicity without penalty in their personnel evaluations.

Recommendation 6: Service
Women should be recognized and rewarded for their service to the university and the profession. At the same time, departments and colleges should take measures to ensure that women—and especially women of color—are not unduly burdened by service obligations.

Recommendation 7: Training Materials
The American Psychological Association should develop training materials for departments of psychology, including material for chairs and faculty, that provide explicit and positive guidance in promoting a gender-equitable climate.

Recommendation 8: Ethnic Minority Issues
Institutions and departments of psychology should develop a comprehensive program to address underrepresentation of ethnic minorities that includes curriculum development, programs to enhance access to role models and mentors, scholarship and fellowship funding, and change in the institutional climate. Materials developed by APA's Commission on Ethnic Minority Recruitment, Retention, and Training should continue to be widely disseminated, and the recommendations of its 5-year plan fully implemented.

II. Introduction

Times have changed for women in psychology. Or have they? Women today earn about two-thirds of all doctorates in psychology, and nearly 4 out of 10 of the full-time psychology faculty in 4-year institutions are women. Women psychologists have clearly made it above the bottom rung of the academic ladder. But can they make it to the top? Or will career success in academe remain a moving target? Will women's energies be channeled into "housekeeping" tasks and other activities that are less prestigious but considered gender appropriate (e.g., advising students)? A woman may have entered the academy, but she may not be able to fulfill her career potential if she is disproportionally burdened with excessive teaching loads and committee work, if she isn't given the space and resources needed to be productive, if her research interests are trivialized, if she must deal with sexual harassment, if she does not have access to child care, if she is not treated as a respected and valued colleague, or if she works in an institution that assumes a level of job concentration that precludes meeting family and community responsibilities.

There is strong evidence that times have indeed changed for women in psychology. Consider: Women were 23% of doctoral recipients from 1920 to 1974, 33% in 1976, 51% in 1986, and 66% in 1996 (National Research Council [NRC], 1998; selected years based on analyses compiled by APA Research Office, 1998). Furthermore, the gender segregation that previously pervaded the field has markedly declined. By 1996, the proportion of women had increased in all subfields of psychology, and women were the majority of doctoral recipients in 12 of 14 subfields, with two notable exceptions: psychometrics/quantitative (33% women) and cognitive/psycholinguistics (47% women) (NRC, 1998). (See Table 1, p. 3.)

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Table 1
Psychology Doctoral Degrees Awarded in 1996 by Gender and Ethnicity

		Gender		Ethnicity					
Subfield	Total	Men	Women	American Indian	Asian	Black	Hispanic	White	Other
Clinical	1,325	406	919	8	34	74	71	1,088	36
Cognitive & Psycholinguistics	128	68	60	0	3	0	2	93	29
Comparative/Physio/Psychobiology	83	40	43	1	6	1	8	62	6
Counseling	464	161	303	4	14	26	21	377	14
Developmental & Child	188	34	154	0	12	10	12	144	9
Experimental	128	60	68	1	5	1	0	107	13
Educational PhD/EdD	401	116	285	3	15	22	14	300	38
Family/Marriage Counseling	52	24	28	0	2	2	0	41	6
Industrial & Organizational	162	63	99	2	7	4	15	128	5
Personality & Social	194	72	122	1	9	7	9	155	22
Psychometrics & Quantitative	30	20	10	0	3	0	1	17	10
School PhD/EdD	196	44	152	1	4	6	7	175	2
Psychology, General	279	99	180	2	14	11	18	175	17
Psychology, Other	133	49	84	0	3	4	5	107	9
Total	**3,763**	**1,256**	**2,507**	**23**	**131**	**168**	183	2,939	216

Source: Data for table are drawn from Sanderson, A., and Dugoni, B. (1999). Summary report 1997: Doctorate recipients from United States universities. *Chicago: National Opinion Research Center.*

Note. These data reflect doctoral degrees in psychology and those granted in educational and school psychology in departments of education. "Other" includes non-U.S. citizens with temporary visas and "unknown race" categories. "Total" includes individuals who did not report citizenship at time of doctorate so it is larger than the ethnic minority categories and "other" categories combined.

Unfortunately, the proportion of women as psychology faculty in colleges and universities has increased more slowly than that of women's enrollments in psychology doctoral programs. By 1991, more than one out of three (35%) full-time psychology faculty were women, and women constituted 49% of all new full-time faculty appointments in graduate psychology departments (Wicherski & Kohout, 1993). From 1990-1991 to 1998-1999, 52% of new assistant professor appointments went to women. However, there has been little movement in the proportion of women faculty overall. Despite the fact that more than half of all psychology doctorates since 1986 have been awarded to women, in 1998–1999 only 34% of the full-time faculty in doctoral-granting departments of psychology and 39% of such faculty in master's-granting departments were women (Wicherski, Guerrero, & Kohout, 1999).

While the changes in women's participation are to be celebrated, many challenges remain. A recent study by Helen Astin and her colleagues (Astin & Cress, 1998) on women in research universities underscores the point that underrepresentation is not the only issue of concern: The academic culture also needs to be changed. Astin and Cress found that some values held by women differed from those of their male colleagues, with men motivated more by self-enhancement and money, while women were more humanistically oriented, socially concerned, and committed to helping the community. Women were also found to be less satisfied and more stressed. Those researchers concluded that "while there is some progress in terms of women's greater participation numerically, the academy has not completely embraced them nor the values they bring to their faculty roles with respect to teaching and serving." They further stated that "we believe that women's success in the academy is often stymied by the fact that women's work and commitment to educating and serving are still not what is valued and rewarded in higher education" (p. 29).

Psychology and the careers of women psychologists reflect the social context and the cultural values of higher education institutions. Women have participated in the field from its beginnings, but larger social forces have shaped the progress of their careers and their contributions (Russo, 1983, 1988). The women's movement of the 1970s, with its emphasis on the rights of the individual and the concept of gender equality, opened new doors for women in academic psychology, including development of the new subfield of the psychology of women. Nonetheless, inequities persist.

The proportion of women on psychology faculties increased from the early 1970s but appears to have leveled off in the 1990s. Today, women psychologists in academe work in institutions that largely maintain norms and standards that reflect their sexist history and that continue to be predominantly populated by male faculty and administrators (Rossiter, 1982). Although women are now the majority of psychology students at both undergraduate and graduate levels, they continue to be a minority of the faculty who teach those students. Judged merit continues to reflect male values and to be defined in terms of prestige and productivity indicators controlled by and more accessible to men. Boyer's (1990) seminal work has sparked a debate on redefining scholarship (see Halpern et al., 1998, for a discussion of this issue in psychology).

Nonetheless, these proposed changes are far from universally accepted and will not likely affect women and men in the academy for some time. In addition, gender bias and stereotyping today are more covert and subtle, hence, more difficult to confront. Although the increasing proportion of women in the field is encouraging, equity issues go beyond simple access to employment and encompass type of appointment, tenure, workload, advancement, compensation (including parental leave), resources (including child care), and institutional climate. Attention to all these issues is needed to ensure that women have access to opportunities that remains consistent over the course of their entire careers, from their first job hunt to their retirement negotiations.

Task Force on Women in Academe: Background and Mission

The Task Force on Women in Academe was established by the APA Council of Representatives "to delineate and evaluate issues associated with recruitment, retention, and progress of women in psychology throughout their careers in academia." Toward that end, this report takes a broad look at the characteristics, contexts, and status of academic women psychologists, with special attention to the issues they face in their teaching, research, and service.

The task force is the latest in a series of bodies established by the APA to examine and enhance the status of women in psychology (see Appendix A for a history of these efforts). The first of these bodies, APA's Task Force on the Status of Women in Psychology in 1970, led to the creation of APA's Committee on Women in Psychology (CWP) in 1973. In 1991, APA established the Task Force on the Changing Gender Composition of Psychology to "examine shifts in the gender composition of the discipline and to identify the implications of these shifts for psychology" (APA Task Force on the Changing Gender Composition of Psychology, 1995, p. 56). That task force documented women's increasing participation in the field. However, it found that the news on women's participation in various employment sectors and work roles was mixed: "Global indicators of participation, while emphasizing the entrance of women into the psychological workforce, do not speak to gender equity in terms of status and advancement" (p. 35). It also found that the status of women in academic contexts continued to lag behind that of their male peers and that the gender gap in salaries was larger in academe than in other employment settings. Indeed, women's salaries in academe were 86% of men's, compared with 89% and 99% of men's in business/industry and government, respectively (p. 29).

During the fall of 1997, members of the Committee on Women in Psychology and of the Women's Caucus of APA's Council of Representatives met to discuss how the two groups might join forces in sponsoring an initiative to follow up on the work of the 1995 Task Force to more closely examine the status of women in academe. The CWP then undertook the considerable task of selecting and appointing the members and chair of the Task Force on Women in Academe and securing the approval and funding for this initiative from the APA Council of Representatives. In February 1998, the Council of Representatives voted to support this effort, and members of the task force (which included members of the Women's Caucus of Council, APA's Committee on Women in Psychology, and APA Women's Programs Office staff) began their deliberations. This report is one of the products of those efforts (see the APA Web site at http://www.apa.org/pi/wpo/nltf.html).

In keeping with the charge to the Task Force on Women in Academe, this report considers the characteristics, roles, and status of academic women psychologists, documenting both how far we have come and how far we have yet to go. A qualitative discussion then addresses successes, obstacles, and issues related to research, teaching, and service roles. These sections document the continued need for improvement in women's academic status. They also provide the context for a package of recommendations in eight areas—climate, compensation, accountability, teaching, research, service, training, and ethnic minority issues—that constitute a plan of action for removing the barriers and reconstructing the academic playing field.

III. Profile of Academic Women Psychologists

This section presents a profile of women psychologists in academe, beginning with women who hold master's and doctorate degrees and who are employed in academe in a variety of roles and institutions, as well as data on faculty in departments granting advanced degrees in psychology. To present a more complete picture of women psychologists in academe, we briefly consider women who teach in both 2- and 4-year institutions. However, the most detailed information we provide is based on women in 4-year institutions and in graduate departments of psychology.

Employment Roles for Women Holding Master's or Doctorates in Psychology

Individuals who have their highest degrees in psychology are a substantial proportion of all faculty. The 1993 Survey of Postsecondary Faculty of the National Center on Educational Statistics (NCES),[1] showed that 44,884 individuals (4.3% of the sample) held their highest degrees in psychology; 46.4% of this population was female. Thus, about 1 in 23 faculty members had a degree in a field of psychology. As we note later, not all of those faculty members with doctorates in psychology (including PhDs and EdDs) teach in psychology; they are also found in areas such as education, business, and health. Although a majority of postsecondary faculty with psychology degrees held doctoral degrees (61.7%), a substantial proportion (29.9%) were at the master's level, and 7.2% held bachelor's degrees or lower.

Fewer women than men faculty in psychology (all institutions) report the doctorate as their highest degree (in 1993, 51.8% of women versus 70.3% of men, respectively). Looking at the data another way, men held the majority of psychology doctorates in academe (61.0%). In contrast, women held a slight majority of psychology master's degrees (57.6%) as their highest degree. Thus, despite the fact that the doctorate is an important credential for success in academe, psychologists with master's degrees also find opportunities for academic employment, and the majority of individuals with master's degrees in psychology are women. Although most individuals with master's degrees (60%) were found in 2-year colleges, regardless of gender, a substantial proportion (40%) was employed in 4-year institutions.

Ethnic minority status of individuals holding doctorates

More than 8 out of 10 psychology doctorates are granted to Whites, regardless of gender. Although the proportion of ethnic minorities earning doctorates is slowly rising, it continues to be unacceptably low in all subfields. In 1996, 3,474 of the 3,763 psychology doctorates awarded were earned by individuals whose race could be identified (NRC, 1998). These figures were presented by gender and ethnicity. Only 14.5% of those 3,474 doctorates went to ethnic minorities (NRC, 1998). As can be seen in Table 1, the small sample sizes would make detailed presentations problematic and raise issues of confidentiality. Further, as seen in Table 2 (p. 6), the proportion of faculty women of color is quite small, thus making it impossible to use the 1993 NCES data to develop a detailed portrait of their status. Although we are not able to include a separate profile of ethnic minority women's status in this report, the fact that their numbers are so low speaks volumes about the need for action on ethnic minority women's issues. These concerns are so important that this report includes a separate section in the recommendations for addressing them.

Full-time versus part-time status

A substantial proportion of faculty with psychology degrees holds part-time positions, but a large proportion of that group prefers having full-time positions. Two out of five (41%) psychology faculty with doctoral or master's degrees hold part-time positions; of these, 46% are women and 37% are men. Because women are more likely to hold part-time positions than men, the gender gap in status and power persisting on psychology faculties can be masked unless full- and part-time faculty are considered separately. Furthermore, the immense contribution of women psychologists who are outside of the full-time faculty role can be overlooked if only full-time faculty are used to construct the picture. The proportion of part-time employees is higher in 2-year institutions, where the majority of faculty are part-time (56% of women and 66% of men at 2-year institutions are part-time), but it is substantial even in 4-year institutions, where 41% of women versus 28% of men hold part-time positions (see Table 3, p. 6). Most people who hold part-time positions prefer to do so, regardless of gender (53% of men and

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[1] To develop its profile of academic women psychologists, the task force used a variety of data sources. Unfortunately, no single data set covered all the issues of interest. Consequently, the following portrait is a collage, assembled from different data sources using different definitions, samples, questions, and dates of collection. Unless otherwise stated, the information in this section comes from special analyses of the 1993 National Study of Postsecondary Faculty of the National Center on Educational Statistics (NCES, 1993). Sources for specific data are cited, and more complete descriptions of the various data sources can be found in the references.

Table 2
Racial and Ethnic Composition of Psychology Faculty by Gender: 1993

Race		Men	Women	Total
American Indian/Alaskan Native		2.0%	0.7%	0.4%
Asian/Pacific Islander		2.6%	1.2%	2.0%
African American/Black		3.4%	6.0%	4.5%
White		91.4%	90.0%	90.8%
Other		2.5%	2.2%	2.3%
Total Cases		22,573	18,516	41,089
Hispanic Descent	Yes	2.9	2.0	2.5
	No	97.1	98.0	97.5
Total Weighted Cases		21,987	18,298	41,285

Note. Weighted cases reflect population estimates based on a sample of 1,033 respondents. Thus, the figures for the minority groups are based on tiny subsamples and cannot be considered reliable estimates of the population. They are presented here only to illustrate the smallness of their proportions. Constructed from the 1993 National Study of Postsecondary Faculty of the National Center on Educational Statistics.

Table 3
Employment Status by Institution Level and Gender: Doctorates and Master's Degrees (1993)

	Employment Status	Men	Women
TOTAL INSTITUTIONS	*N* Weighted Cases	22,573	18,516
	% Full-Time	63%	55%
	% Part-Time	37%	46%
4-YEAR INSTITUTIONS	*N* Weighted Cases	17,107	13,302
	% Full-Time	73%	59%
	% Part-Time	28%	41%
2-YEAR INSTITUTIONS	*N* Weighted Cases	5,466	5,213
	% Full-Time	34%	44%
	% Part-Time	66%	56%

Note. Totals are population estimates, using weighted cases, based on a sample of 1,033 respondents. Columns may not add up to 100% because of rounding. Constructed from the 1993 National Study of Postsecondary Faculty of the National Center on Educational Statistics.

Table 4
Part-Time Employment Preference by Gender: Part-Time Employees Holding Doctorates and Master's Degrees (1993)

Employment Preference: Part Time Preferred	Men (8,327)	Women (8,417)	All (16,744)
Yes	53%	60%	57%
No	47%	40%	43%

Note. Totals are population estimates, using weighted cases, based on a subsample of 282 respondents. Constructed from the 1993 National Study of Postsecondary Faculty of the National Center on Educational Statistics.

60% of women holding part-time positions prefer to work part-time). However, this means that 47% of men and 40% of women hold part-time positions when it is not their preference (Table 4, p. 6). Thus, while it is important to foster part-time opportunities as a valid career option for both men and women, mechanisms to facilitate transition from part-time to full-time status also need to be implemented.

Age and family status

Men in psychology are older on average than women and are more likely to be married or cohabiting and have dependents. On average, in 1993, males with psychology degrees (doctorates and master's degrees combined) were 3 years older than their female peers (mean ages 48 versus 45 years, respectively). The age difference is even greater for full-time (49 versus 44 years) compared with part-time (48 versus 46 years) faculty. The age difference for men and women suggests that at the time the survey was conducted, they were in different career and family stages. For example, 50% of women were under 45 years of age (childbearing years), compared with 36% of men (Table 5).

Table 5
Age by Employment Status and Gender: Doctorates and Master's Degrees (1993)

	Age	Men	Women
ALL FACULTY	Total*	22,573	18,516
	<35	7%	15%
	35–44	30%	35%
	45–54	38%	32%
	55 or older	26%	19%
FULL-TIME FACULTY	Total*	14,246	10,098
	<35	6%	17%
	35–44	29%	37%
	45–54	35%	31%
	55 or older	30%	15%
PART-TIME FACULTY	Total*	8,327	8,417
	<35	8%	13%
	35–44	31%	31%
	45–54	41%	32%
	55 or older	20%	24%

Note. Constructed from the 1993 National Study of Postsecondary Faculty of the National Center on Educational Statistics.

** Totals are population estimates, using weighted cases, based on a sample of 1,033 respondents.*

Although the majority of both sexes were married or cohabiting, the proportion was higher for men (84%) than for women (65%). Women were more likely than men to have never been married, particularly those working full time (20% versus 8%). Women were also less likely to have dependents than men (47% versus 26% reporting no dependents). These comparisons differed only slightly for part-time faculty compared with full-time faculty (Tables 6 and 7, p. 8).

The relationships (spouse, child, aged parent) and age of the dependents are unknown. Nonetheless, given the younger age of the women, we can speculate that men were more likely to be settled in their family relationships, be providing for older children, and have spouses who did not work outside of the home. Women, in contrast, may have been more likely than men to be contemplating a future of marriage and children or to be responsible for providing care for younger children.

Doctoral-Level Psychologists

We now briefly focus on doctoral-level psychologists, that is, those with PhDs or EdDs in psychology, who teach either full time or part time in 2-year or 4-year institutions. Unfortunately, the sample of ethnic minority psychologists in this group is too small to report differences by ethnicity with any reliability. Because of space limitations, this report concentrates on those doctoral holders who have full-time employ-

Table 6
Marital Status by Employment Status and Gender: Doctorates and Master's Degrees (1993)

	Marital Status	Men	Women
ALL FACULTY	Total*	22,573	18,516
	Never Married	9%	16%
	Married/Co-Hab	84%	65%
	Divorced/Separated/ Widowed	8%	19%
FULL-TIME FACULTY	Total*	14,246	10,099
	Never Married	8%	20%
	Married/Co-Hab	84%	64%
	Divorced/Separated/ Widowed	9%	16%
PART-TIME FACULTY	Total*	8,327	8,417
	Never Married	10%	11%
	Married/Co-Hab	84%	67%
	Divorced/Separated/ Widowed	6%	11%

Note. *Constructed from the 1993 National Study of Postsecondary Faculty of the National Center on Educational Statistics.*

** Totals are population estimates, using weighted cases, based on a sample of 1,033 respondents.*

Table 7
Dependents by Employment Status and Gender: Doctorates and Master's Degrees (1993)

	Number of Dependents	Men	Women
ALL FACULTY	Total*	22,573	18,516
	None	26%	47%
	1–2	51%	45%
	3 or more	23%	8%
FULL-TIME FACULTY	Total*	14,245	10,098
	None	14%	43%
	1–2	54%	46%
	3 or more	22%	11%
PART-TIME FACULTY	Total*	8,327	8,417
	None	29%	51%
	1–2	47%	44%
	3 or more	25%	5%

Note. *Constructed from the 1993 National Study of Postsecondary Faculty of the National Center on Educational Statistics.*

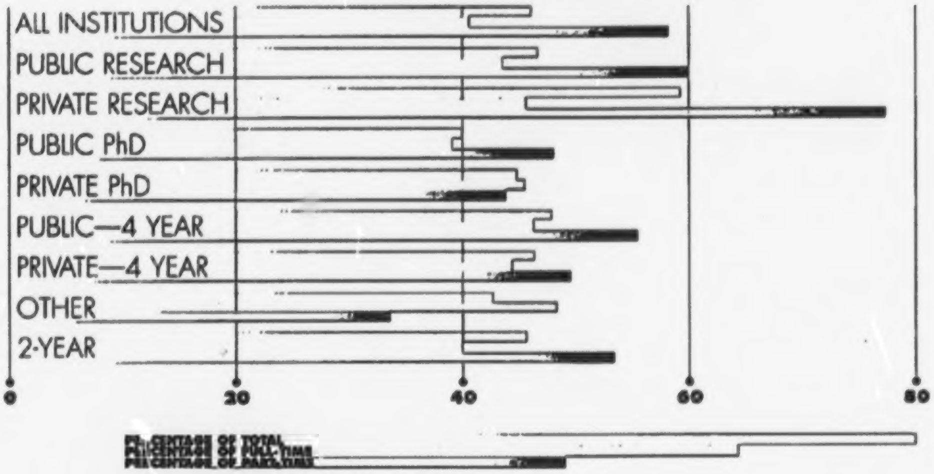
** Totals are population estimates, using weighted cases, based on a sample of 1,033 respondents.*

ment with responsibility for generating new psychological knowledge (researchers) and transmitting it to the next generation of psychologists (teachers). Nonetheless, when conceptualizing where employment opportunities might be found for psychologists in academe, the broader context should be kept in mind.

Full-time versus part-time status

For full-time faculty, women are the minority in all institutional categories, while for part-time faculty, the proportions vary widely, with men predominating in some institutional types and women predominating in others. In 1993, 39% of the estimated 27,689 individuals in academe who held psychology doctorates, were women. Figure 1 presents the proportion of women faculty on various institutional settings by employment status (full-time and part-time). In particular, women constitute the vast majority of part-time psychology faculty in private research universities.

Figure 1
Proportion of Women Faculty by Employment Setting



Source: NCES 1993 Survey of Postsecondary Faculty data.

Weighted cases reflect population estimates based on a sample of 708 respondents representing 27,689 individuals.

Rank and tenure

Women differ from men on the critical status indicators of rank and tenure. The proportions of women and men holding faculty status were similar regardless of employment status (see Table 8, p. 10). However, women were more likely to hold a lower faculty rank, especially among full-time employees (see Table 9, p. 10). As seen in Table 10 (p. 11), women were also substantially less likely to have tenure: 52% of men versus 30% of women were tenured. Among individuals in a tenure system, untenured women were more likely to be found on the tenure track than untenured men. Women were more likely than men not even to be in a tenure system, however. Men were more likely than women to say their principal activity was teaching or research and less likely to report their principal activity as clinical service, administration, or "other" (see Table 11, p. 12). Other analyses of the NCES data show that women's administrative duties were less likely to be in line positions, however (e.g., in 1992 14% of men compared with 5.7% of women served as department chair, while 9% of women compared to 2% of men served as head of a program).

Income disparities

Salary differentials persist, and men are also more likely to have other sources of income than their basic faculty salary from sources both within and outside of their institution, increasing the gap between total annual incomes of women and men. Salary differentials have received substantial attention in the past decades, and some women have used salary equity surveys to good effect in arguing for equity adjustments (see Haignere, Lin, Eisenberg, & McCarthy, 1996, for how to conduct a salary equity study). In 1993, the annualized salary of doctoral women psychologists employed full time was 76% of salaries

Table 8
Faculty Status by Gender and Employment Status: Doctorates Only (1993)

	Faculty Status	Men	Women	All
ALL FACULTY	Total*	16,893	10,796	27,689
	Yes	95%	92%	94%
FULL-TIME FACULTY	Total*	12,729	7,035	19,764
	Yes	99%	97%	98%
PART-TIME FACULTY	Total*	4,163	3,761	7,924
	Yes	85%	81%	83%

Note. *Constructed from the 1993 National Study of Postsecondary Faculty of the National Center on Educational Statistics.*

* *Totals are population estimates, using weighted cases, based on a sample of 708 respondents.*

Table 9
Academic Rank by Gender: Doctoral Psychologists (1993)

	Rank	Men	Women	All
ALL FACULTY	Total*	16,893	10,796	27,689
	Full	37%	22%	31%
	Associate	24%	22%	23%
	Assistant	21%	32%	25%
	Instructor	9%	13%	11%
	Lecturer	3%	3%	3%
	Other/NA	6%	10%	7%
FULL-TIME FACULTY	Total*	12,728	7,035	19,763
	Full	43%	27%	37%
	Associate	27%	25%	27%
	Assistant	23%	33%	27%
	Instructor	2%	7%	4%
	Lecturer	1%	3%	2%
	Other/NA	3%	5%	4%
PART-TIME FACULTY	Total*	7,796	4,160	11,956
	Full	16%	12%	15%
	Associate	12%	16%	14%
	Assistant	16%	29%	22%
	Instructor	31%	25%	28%
	Lecturer	9%	3%	6%
	Other/NA	15%	15%	15%

Note. *NA = not applicable. Constructed from the 1993 National Study of Postsecondary Faculty of the National Center on Educational Statistics.*

* *Totals are population estimates, using weighted cases, based on a sample of 708 respondents.*

Table 10
Tenure Status by Gender and Employment Status: Doctoral Psychologists (1993)

	Tenure Status	Men	Women	All
ALL FACULTY	Total*	16,892	10,796	27,688
	Tenured	52%	30%	44%
	Tenure Track	15%	29%	20%
	Not Tenure Track	18%	18%	18%
	No Tenure System	15%	24%	18%
FULL-TIME FACULTY	Total*	12,729	7,036	19,765
	Tenured	68%	44%	59%
	Tenure Track	18%	40%	26%
	Not Tenure Track	7%	11%	8%
	No Tenure System	7%	6%	7%
PART-TIME FACULTY	Total*	4,164	3,762	7,926
	Tenured	5%	4%	4%
	Tenure Track	5%	8%	6%
	Not Tenure Track	53%	31%	43%
	No Tenure System	38%	56%	47%

Note. *Constructed from the 1993 National Study of Postsecondary Faculty of the National Center on Educational Statistics.*

** Totals are population estimates, using weighted cases, based on a sample of 708 respondents.*

of men. But salaries are not the only source of income from an institution. Indeed, in many institutions, individuals on 9-month contracts can be awarded a research or teaching stipend for the remaining 3 months as additional compensation. Such stipends are sometimes included in the initial offer to an individual being recruited for a faculty position. Thus, data that show smaller gender differences in salaries, particularly at entry levels, may be missing a major part of the compensation picture. Tables 12a-c (pp. 13, 14, and 15) provide income information separately for full- and part-time faculty. When all additional income sources that come through the academic institution are included for women who work full time (including research grants that supplement salaries), women's supplemental income from their institution is 49% that of men's.

Furthermore, among full-time doctorates in 1993, 35% (41% of men and 24% of women) reported having additional employment outside their institution. Women earned less than men in nearly all income categories, but the differential was largest in the outside income categories where the overall income differential for full-time employees ranged from 29% to 51%. As will be seen below, women's younger age and concentration in lower ranks contribute to the income gaps. Nonetheless, these differentials mean that women may be more likely to have fewer economic resources to draw upon to support their professional activities. Buying up-to-date equipment, traveling to professional meetings, hiring household help, and paying for child care are just a few ways that individuals can use financial resources to enhance their careers, and, insofar as women have fewer financial resources to spend on their career development, they will be at a disadvantage.

Graduate Departments of Psychology

Faculty employed in departments of psychology that award graduate degrees constitute only a small portion of all doctoral psychologists employed in academe. But graduate departments of psychology are of special importance, for they train our future generations of psychologists. APA's annual surveys of graduate departments provide a rich source of information about psychologists in these settings, including data broken out by gender and subfield (Table 13 and Table 14, pp. 16 and 17).

Women faculty in graduate departments

Women are the minority of faculty in doctoral and master's departments; the gender gap is slightly larger for doctoral departments and differs with subfield. In 1998-1999, one out of three

Table 11
Principal Activity by Employment Status and Gender: Doctoral Psychologists (1993)

	Principal Activity	Men	Women	All
ALL FACULTY	Total[a]	16,892	10,797	27,689
	Teaching	72%	58%	66%
	Research	13%	10%	12%
	Clinical Service	2%	8%	4%
	Administration	10%	13%	11%
	Other	3%	11%	6%
FULL-TIME FACULTY	Total[a]	16,890	10,763	27,653
	Teaching	67%	60%	64%
	Research	16%	13%	15%
	Clinical Service	3%	5%	4%
	Administration	11%	16%	13%
	Other	3%	6%	4%
PART-TIME FACULTY	Total[a]	4,164	3,761	7,925
	Teaching	88%	55%	72%
	Research	5%	4%	5%
	Clinical Service	——[b]	13%	6%
	Administration	4%	8%	6%
	Other	3%	20%	11%

Note. *Constructed from the 1993 National Study of Postsecondary Faculty of the National Center on Educational Statistics.*

[a] Totals are population estimates, using weighted cases, based on a sample of 708 respondents.

[b] Too small to estimate.

(34.4%) faculty in doctoral-granting psychology departments was female; for master's-granting departments, the figure was two out of five (38.7%). The proportion of women varies widely depending on subfield. Focusing on subfields having more than 110 faculty responding to the survey—clinical, cognitive, counseling, developmental, educational, experimental, industrial/organizational, neuroscience, physiological, school, social, and other bio-based research subfields—reveals a range from a high of 54.5% in developmental to a low of 19.3% in experimental.

The proportion of women varies widely by rank and subfield, with larger proportions of women found in the lower ranks. Among the larger subfields, with the exception of developmental and educational psychology, the proportion of men in doctoral departments was larger with each successive rank. This upside down pyramid population structure, in which men are 77.8% of the full professors, 60.5% of the associate professors, and 46.9% of the assistant professors, can be viewed optimistically: A large percentage of women are poised for advancement in the lower ranks. However, given that women have been earning the majority of doctorates since 1986, these numbers are not so heartening.

Income disparities
Salary differentials have lessened but persist at the upper levels and vary slightly with subfield. Tables 15 and 16 (pp. 17 and 18) present median salary for full-time faculty by gender, rank, and subfield for doctoral and master's departments of psychology. Inspection of these figures reveals that gender differences in type of department and in rank are the primary proximate determinants of the overall gender gap in median salary. Although women still earn lower median salaries within all ranks and in both types of departments, the differences are not significant when partial correlations are computed between gender and salary for each rank with year of degree controlled. This suggests that the current

Table 12a
Mean Income From Various Sources by Gender:
All Faculty Doctoral Psychologists (1993)

Variable	All	Men	Women
Basic salary	$37,621	$41,484	$31,577
Other teaching	1,614	1,942	1,100
Supplements	839	1,064	487
Nonmonetary compensation	416	674	12
Other income from institution	278	289	261
Income from other institution	2,603	2,734	2,399
Legal/medical/counseling services	6,776	7,612	5,468
Outside consulting	3,475	4,622	1,678
Self-owned business	1,480	1,802	975
Speaking fees/honoraria	381	369	400
Royalties/commissions	1,004	1,504	222
Any other employment	4,453	3,347	6,184
Grants/fellowships	141	150	127
Basic salary annualized	46,211	50,986	38,741
Females' income as % of males'			(76%)
Outside income from institution	3,146	3,969	1,859
Females' income as % of males'			(49%)
Outside consulting income	3,475	4,622	1,678
Females' income as % of males'			(36%)
Other outside income	17,923	18,414	17,154
Females' income as % of males'			(93%)
Total earned income	62,164	68,489	52,269
Females' income as % of males'			(76%)

Note. Totals are population estimates, using weighted cases, based on a sample of 708 respondents. Constructed from the 1993 National Study of Postsecondary Faculty *of the National Center on Educational Statistics.*

strategies for ensuring salary equity can work and should be continued. Unfortunately, information on other sources of income from the institution is not available for this group. As discussed earlier in this report, however, equity of compensation needs to be assessed based on all income sources.

IV. Obstacles to Women's Success in Academe

Academe is not yet a level playing field. When women psychology faculty (PhDs and MAs) were asked in the NCES (1993) national survey how much they agreed with the statement, "Female faculty members are treated fairly at this institution," 40% disagreed, 11% of them strongly. Their male colleagues perceived less inequity, however. Only 15% of male faculty disagreed, 4% strongly. Although bias and stereotyping are intensified for women who are in the minority in their employment setting, the gender of one's evaluators and general societal perceptions of the gender appropriateness of the specific occupation also play a role. Thus, despite the many advances made by women in academic psychology, they are still often in the minority (e.g., among full professors), often evaluated by a group made up mostly of men (e.g., for promotion and tenure), and sometimes engaged in a field (e.g., psychophysiology) or activity (e.g., research) seen as more appropriate for males. Moreover, since leadership itself has traditionally been viewed as a masculine endeavor, women leaders in intellectual endeavors or administrative positions may confront difficulties that men do not experience.

Gender discrimination is sometimes delivered as a "knockout blow" to one's professional advancement, as Ann Hopkins discovered when she was denied a partnership by Price Waterhouse (Fiske, Bersoff,

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Table 12b
Mean Income From Various Sources by Gender: Full-Time Faculty Doctoral Psychologists (1993)

Variable	All	Men	Women
Basic salary	$48,302	$51,212	$43,036
Other teaching	2,158	2,533	1,480
Supplements	1,122	1,398	596
Nonmonetary compensation	583	895	18
Other income from institution	220	154	338
Income from other institution	350	425	213
Legal/medical/counseling services	2,835	3,799	1,091
Outside consulting	2,290	3,066	885
Self-owned business	607	793	270
Speaking fees/honoraria	334	328	347
Royalties/commissions	1,163	1,681	226
Any other employment	484	701	91
Grants/fellowships	169	155	195
Basic salary annualized	58,514	61,917	52,357
Females' income as % of males'			(86%)
Outside income from institution	4,072	4,979	2,432
Females' income as % of males'			(49%)
Outside consulting income	2,290	3,066	885
Females' income as % of males'			(29%)
Other outside income	6,894	8,342	4,273
Females' income as % of males'			(51%)
Total earned income	61,558	67,601	50,626
Females' income as % of males'			(75%)

Note. *Totals are population estimates, using weighted cases, based on a sample of 708 respondents. Constructed from the 1993 National Study of Postsecondary Faculty of the National Center on Educational Statistics.*

Borgida, Deaux, & Heilman, 1991). However, it probably more often occurs as a long series of "microinequities" (Rowe, 1990) or "unintended slights" (Association of American Medical Colleges [AAMC], 1996) that create a more stressful, less rewarding environment for women. For most women, it is the disadvantage that accrues over time that is most harmful to their professional achievement and their quality of life at work (Bickel, 1995; Valian, 1998). We begin this section with a discussion of issues related to stereotyping and bias, followed by a description of the possible effects of discriminatory behavior on women's access to opportunities in research, teaching, service, and leadership.

Difficulties of Difference

In an important set of meta-analyses, Eagly and her colleagues (Eagly & Johnson, 1990; Eagly, Karau, & Makhijani, 1995; Eagly, Makhijani, & Klonsky, 1992) examined the relationship between gender and leadership in a wide variety of settings, academic and otherwise. Taken as a whole, their findings clearly illuminate the gender fault lines lying just beneath an apparently benign surface. Overall, perceived effectiveness did not differ for the male and female leaders included in the studies analyzed by Eagly et al. (1995), and evaluations of female leaders were only slightly more negative than those of male leaders (Eagly et al., 1992). However, a more detailed examination of these data paints a more disturbing picture.

Women in settings where there were many more men than women were evaluated more negatively and perceived as less effective than were men (Eagly et al., 1995; Eagly et al., 1992). Women were also evaluated more negatively by male raters (Eagly et al., 1992), who, of course, predominate in groups with a preponderance of men. Interestingly, the leadership style that women displayed was related to the proportion of women in the group. Although women were generally more likely than men

Table 12c
Mean Income From Various Sources by Gender: Part-Time Faculty Doctoral Psychologists (1993)

Variable	All	Men	Women
Basic salary	$10,984	$11,742	$10,145
Other teaching	257	137	389
Supplements	156	42	283
Nonmonetary compensation[a]	——	——	——
Other income from institution	423	700	116
Income from other institution	8,225	9,794	6,488
Legal/medical/counseling services	16,605	19,269	13,654
Outside consulting	6,429	9,380	3,163
Self-owned business	3,656	4,887	2,294
Speaking fees/honoraria	498	496	501
Royalties/commissions	607	963	214
Any other employment	14,353	11,437	17,581
Grants/fellowships	71	135	——[a]
Basic salary annualized	15,531	17,569	13,274
Females' income as % of males'			(76%)
Outside income from institution	836	879	788
Females' income as % of males'			(90%)
Outside consulting income	6,429	9,380	3,162
Females' income as % of males'			(34%)
Other outside income	45,427	49,204	41,247
Females' income as % of males'			(84%)
Total earned income	63,677	71,205	55,343
Females' income as % of males'			(78%)

Note. Totals are population estimates, using weighted cases, based on a sample of 708 respondents. Constructed from the 1993 National Study of Postsecondary Faculty of the National Center on Educational Statistics.

[a] *Too small to estimate.*

to engage in a democratic, participatory style of leadership, this difference was weakened in male-dominated settings (Eagly & Johnson, 1990).

Thus, when women were in the minority, they were more likely than women in the majority to be less democratic and more autocratic. This difference in style is not without consequences: An autocratic style by a female leader elicited strongly negative evaluations. Men, however, were not devalued for adopting the more female-preferred democratic leadership style (Eagly et al., 1992).

In addition, Eagly and her colleagues found that women and men in roles viewed by others as unsuitable for their gender were less task-oriented than those in more gender-congenial roles (Eagly & Johnson, 1990) and were perceived by others as less effective leaders (Eagly et al., 1995). Since perceptions of gender appropriateness are correlated with actual gender ratios, these two factors tend to be mutually reinforcing.

The meta-analyses conducted by Eagly and her colleagues included laboratory research as well as organizational studies, with participants ranging from undergraduate and graduate students to managers and supervisors in both private and public settings. This wide variation suggests that these findings would apply to women in many different occupations, including faculty as well as administrators in colleges and universities. We will now examine the considerable body of research that supports and expands upon the themes identified by these meta-analytic studies.

Table 13
Proportion and Number of Women Faculty by Rank and Subfield for Doctoral Departments of Psychology in 1998-1999

Subfield	Full Professor		Associate Professor		Assistant Professor		Lecturer/Instructor		All Ranks	
	%	Total	%	Total	%	Total	%	Total	%	Total
All Subfields	22.2	2,368	39.5	1,367	53.1	1,120	50.0	52	34.4	4,935
Clinical	21.5	549	40.7	381	56.1	303	61.5	13	36.5	1,255
Cognitive	22.0	218	32.5	117	44.9	127	50.0	2	31.0	465
Community	14.3	14	70.0	10	100.0	9	0	0	52.9	34
Comparative	21.1	19	42.9	7	<1	2	0	0	25.0	28
Counseling	25.0	140	48.5	136	57.5	113	80.0	5	43.1	397
Developmental	40.8	245	69.0	126	68.4	98	100.0	2	54.5	473
Educational	23.5	102	61.4	44	52.2	23	25.0	4	36.9	176
Engineering	20.0	5	33.3	9	40.0	5	100.0	1	35.0	20
Experimental	8.8	181	22.8	101	43.1	65	25.0	4	19.3	353
General	<1	11	25.0	12	50.0	2	40.0	5	20.0	30
Health	42.1	19	38.5	13	37.5	8	0	0	40.5	42
Industrial/Organizational	16.4	67	25.4	67	38.0	50	<1	3	25.1	187
Neuroscience	15.2	105	28.6	35	43.5	46	100.0	1	25.0	188
Personality	11.9	42	25.0	16	50.0	10	0	0	20.6	68
Physiological	12.8	86	36.7	30	42.9	21	50.0	2	22.9	140
Psycholinguistics	33.3	9	100.0	1	100.0	5	0	0	60.0	15
Psychometrics	23.1	13	83.3	6	25.0	4	<1	1	37.5	24
Psychopharmacology	9.1	11	50.0	2	0	0	0	0	15.4	13
Quantitative	4.3	47	21.1	19	40.0	20	<1	1	16.1	87
Research Methodology	15.8	38	28.6	21	46.2	13	100.0	1	26.0	73
School	23.5	81	41.2	51	75.4	61	<1	1	44.6	195
Social	25.2	250	28.1	114	50.5	93	25.0	4	31.0	462
Systems/History	<1	5	<1	1	50.0	2	0	0	12.5	8
Other Practice Subfield	31.6	19	16.7	12	57.1	14	0	0	35.6	45
Other Bio-Based Research Subfield	19.4	62	22.2	27	20.0	20	100.0	1	20.9	110
Other Research Subfield	35.3	17	20.0	5	<1	1	0	0	30.4	23
Other Field	38.5	13	50.0	4	40.0	5	100.0	1	41.7	24

Source: 1998-1999 Faculty Salary Survey by the American Psychological Association, Research Office, 1999, Washington, DC.

Note. Total column includes faculty without academic rank and those whose rank was not specified.

Process and Effects of Bias and Discrimination

In a recent study of gender discrimination at the Massachusetts Institute of Technology (MIT), the senior women faculty asked themselves why they had been so slow to recognize inequities at that institution. They concluded, "It did not look like what we thought discrimination looked like" (MIT, 1999, p. 9). In other words, it is difficult to see discrimination in a single instance. Any specific event can be explained away—by others and, sometimes, by oneself—as the consequence of "special circumstances." Only when the women at MIT began to share their experiences with each other did the general pattern emerge.

The experience of these women—each of whom had already shattered many a glass ceiling to achieve a tenured position at MIT—vividly attests to the fact that although overt discrimination is out of style and indeed legally actionable if applied to hiring and other personnel decisions, covert and subtle forms of discrimination continue and can have a great impact on women's lives. Modern sexism and discrimination include (a) denial that discrimination against women exists, (b) resentment of complaints about discrimination, and (c) resentment of what are seen as special "favors" for women (Swim & Cohen, 1997). Addressing and ameliorating the subtle effects of today's

Table 14
Proportion and Number of Women Faculty by Rank and Subfield for *Master's* Departments of Psychology in 1998-1999

Subfield	Full Professor		Associate Professor		Assistant Professor		Lecturer/Instructor		All Ranks	
	%	Total	%	Total	%	Total	%	Total	%	Total
All Subfields	24.6	568	47.2	356	53.0	347	25.0	8	38.7	1,322
Clinical	20.9	110	47.1	85	50.0	90	<1	1	37.8	299
Cognitive	30.6	36	66.7	18	33.3	27	0	0	39.5	86
Community	28.6	7	25.0	4	0	0	0	0	30.8	13
Comparative	14.3	7	40.0	5	0	0	0	0	25.0	12
Counseling	29.4	34	52.6	19	54.2	24	0	0	41.5	82
Developmental	52.7	55	66.7	42	80.5	41	100.0	1	65.5	142
Educational	16.7	18	41.7	12	16.7	6	<1	2	23.7	38
Engineering	<1	2	50.0	2	<1	2	0	0	16.7	6
Experimental	11.4	88	28.6	28	50.0	34	33.3	3	23.1	156
General	16.7	12	40.0	5	60.0	5	<1	1	30.4	23
Health	66.7	3	33.3	3	71.4	7	0	0	61.5	13
Industrial/Organizational	14.3	21	47.6	21	43.5	23	0	0	34.8	66
Neuroscience	28.6	7	50.0	2	100.0	3	0	0	50.0	12
Personality	16.7	12	16.7	6	20.0	5	0	0	17.4	23
Physiological	24.2	33	24.0	25	37.5	8	0	0	25.4	67
Psycholinguistics	0	0	0	0	<1	1	0	0	0	1
Psychometrics	33.3	3	50.0	2	100.0	2	0	0	57.1	7
Psychopharmacology	<1	1	0	0	0	0	0	0	0	1
Quantitative	36.4	11	40.0	5	33.3	3	0	0	36.8	19
Research Methodology	10.0	10	<1	5	33.3	3	0	0	11.1	18
School	36.4	22	57.9	19	70.0	20	0	0	53.7	67
Social	20.9	67	55.6	45	55.3	38	0	0	41.2	153
Systems/History	40.0	5	0	0	0	0	0	0	40.0	5
Other Practice Subfield	<1	2	100.0	1	33.3	3	0	0	42.9	7
Other Bio-based Research Subfield	100.0	1	<1	1	<1	1	0	0	33.3	3
Other Research Subfield	100.0	1	<1	1	100.0	1	0	0	66.7	3

Source: 1998-1999 Faculty Salary Survey by the American Psychological Association, Research Office, 1999, Washington, DC.

Note. Total column includes faculty without academic rank and those whose rank was not specified.

Table 15
1998-1999 Median Salaries for Full-Time Faculty in U.S. Doctoral and Master's Departments of Psychology by Rank and Gender

	Full Professor				Associate Professor				Assistant Professor				All Ranks			
	Men		Women		Men		Women		Men		Women		Men		Women	
	Salary	*N*	Salary	*N*	Salary	*N*	Salary	*N*	Salary	*N*	Salary	*N*	Salary	*N*	Salary	*N*
Doctoral Departments	73,971	1,836	71,203	528	52,497	841	52,352	541	44,627	542	43,129	596	61,223	3,259	51,602	1,705
Master's Departments	61,577	438	61,327	143	46,443	187	45,757	168	39,211	164	39,000	186	53,057	818	45,111	516

Source: 1998-1999 Faculty Salary Survey by the American Psychological Association, Research Office, 1999, Washington, DC.

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Table 16
Median Salaries for Full-Time Faculty in U.S. Doctoral and Master's Departments of Psychology by (NSF-Compatible) Subfield: 1998-1999

Subfield	Full Professor				Associate Professor				Assistant Professor				All Ranks			
	Men		Women		Men		Women		Men		Women		Men		Women	
	Salary	N	Salary	N	Salary	N	Salary	N	Salary	N	Salary	N	Salary	N	Salary	N
Doctoral																
Clinical/Counseling/ School	71,431	597	67,541	172	52,940	325	51,593	241	44,124	196	43,000	279	59,679	1,129	49,420	713
Experimental/ Comparative/Physiolog[a]	74,847	397	71,699	60	52,500	148	52,752	54	44,514	93	43,600	61	62,440	646	52,906	179
Develop/Social/ Personality	77,800	359	77,000	163	51,389	133	51,952	121	44,926	82	44,000	119	64,870	578	55,021	408
Educational	72,986	78	61,384	24	52,274	17	55,452	27	46,000	11	39,621	12	63,000	111	53,300	65
Industrial/ Organizational	75,579	56	63,703	11	53,417	50	53,800	17	42,876	31	41,976	19	57,687	140	51,463	47
Other Subfields[b]	74,952	335	77,354	90	52,263	153	53,909	77	45,386	112	43,434	103	62,116	609	53,123	277
Master's																
Clinical/Counseling/ School	59,473	124	59,186	41	47,472	62	46,000	61	38,967	62	39,000	72	50,856	264	44,149	183
Experimental/ Comparative/Physiolog[a]	62,720	113	62,050	22	46,200	43	48,228	17	37,760	23	38,948	22	55,817	184	45,497	62
Develop/Social/ Personality	63,989	88	62,975	45	45,866	38	45,361	52	39,339	29	38,665	55	53,060	155	45,736	158
Educational	58,856	15	—	3	—	7	—	4	—	5	—	1	48,583	29	—	8
Industrial/ Organizational	62,236	18	—	3	46,896	10	42,111	10	40,778	13	38,375	10	47,135	42	41,913	23
Other Subfields[b]	60,533	66	62,822	26	52,516	25	46,582	21	40,800	30	39,700	23	53,923	126	46,582	73

Source: 1998-1999 Faculty Salary Survey by the American Psychological Association, Research Office, 1999, Washington, DC.

Note. NSF = National Science Foundation. "All ranks" column includes Lecturers/Instructors, of which there were too few to present statistics separately, and faculty without academic rank or whose rank was not specified. No salaries are presented where the N of faculty is less than 10, and this is represented by —.

[a] *Includes other bio-based subfields including neurosciences and psychopharmacology.*

[b] *Includes cognitive, community, engineering, general, health, psycholinguistics, psychometrics, quantitative, research methods, and systems.*

sexism and its expression in the form of discrimination—which the MIT report characterizes as "powerful but unrecognized assumptions and attitudes that work systematically against women . . . even in the light of obvious good will" (p. 9)—requires a sophisticated understanding of the processes of sexism, stereotyping, and discrimination.

Indeed, considerable research has defined the characteristics of contemporary sexism (e.g., Biernat & Kobrynowicz, 1997; Glick & Fiske, 1996; MacDonald & Zanna, 1998; Ruggiero & Taylor, 1995; Swim, Aikin, Hall, & Hunter, 1995; Tougas, Brown, Beaton, & Joly, 1995). A brief look at what this research base tells us about the range and strength of discrimination against women in the workplace will help place in context discrimination within academe.

Note, for example, how subtle the process of gender discrimination can be. The elicitation of gender stereotypes is "strong and ubiquitous" (Blair & Banaji, 1996) and can take place as an unconscious, automatic process that seems to be independent of either overt sexism or the gender of the perceiver (Banaji & Greenwald, 1995a, 1995b; Spencer, Fein, Wolfe, Fong, & Dunn, 1998). Bias against women's contributions to a group discussion can be expressed by relatively unobtrusive nonverbal responses such as frowns and negative head shaking (Butler & Geis, 1990). In ambiguous situations where the power and status of the participants in a mixed-sex dyad are not clear, nonverbal behaviors by both males and females reinforce the stereotyped presumption of male, rather than female, expertise (Dovidio, Keating, Heltman, Ellyson, & Brown, 1988).

Even the type of rating scale used can affect the evaluations women and men receive (Biernat, Crandall, Young, Kobrynowicz, & Halpin, 1998). Stereotypic differences tend to be smaller on "subjective scales" (such as ratings) than on "objective scales" (such as rankings). Why? Because evaluators can select different comparison groups when rating (e.g., comparing a woman against other women and a man against other men), but have to use the same standard for all of those being rank-ordered in one set. Samuel Johnson had this difference in mind when he made his infamous remark, "Sir, a woman preaching is like a dog's walking on his hind legs. It is not done well; but you are surprised to find it done at all." Theory and research on shifting standards indicate that evaluations of women are fraught with difficulty: A high mark on a subjective scale may be patronizing in the Johnsonian mode and misleading about the evaluator's actual views; a low mark on an objective scale may reflect discrimination and bias rather than actual performance differences. Although there is some evidence that the elicitation of gender stereotypes can be modified by various cognitive factors (such as time available for the task) and the perceiver's intention (Blair & Banaji, 1996), these stereotypes are also quite tenacious. For instance, despite the availability of job-relevant, individuating information that logically should be more important than gender, gender stereotypical hiring evaluations (i.e., preferring men for "masculine" jobs and women for "feminine" ones) still persist (Davison & Burke, in press; Glick, Zion, & Nelson, 1988).

Attitudes toward women's roles have become relatively more egalitarian (Spence & Hahn, 1997; Twenge, 1997), but the long-term outcome of even small degrees of bias and discrimination is not inconsequential. As Martell, Lane, and Emrich (1996) point out, most organizations have fewer positions at the top than at the entry level, and strong performance evaluations are usually necessary for promotion. According to their computer simulation of a company with these characteristics and in which men and women were equally represented in entry positions, pro-male bias accounting for only 1% of the variation in their initial evaluation would reduce the percentage of women at the top level from 50% to 35%.

Complexities of Self-Presentation

In a discussion of the relationship between self-presentation and gender, Rudman (1998) emphasizes how, to a much greater extent than men do, women "are obliged to make decisions every day regarding how to present themselves" (p. 642). Unfortunately, recent research suggests that no matter what presentation is selected, it may still be particularly difficult for women to achieve the apparently reasonable goal of being both respected and liked by both men and other women (Fiske, 1993).

Several research reports published over the last decade have described some of the barriers that women can encounter. For example, women often use "tentative speech," and this affects perceptions of them in the workplace. Carli (1990) defined tentative speech as the frequent use of disclaimers (I'm no expert, I suppose, I may be wrong), hedges (kind of, you know, maybe), and tag questions (Isn't it? Don't you think? Right?). Women who employed more direct language—which lacked such qualifiers—were perceived as more knowledgeable and competent than women who used tentative language. However, women who used direct language were less influential with men than women who used tentative language; men also found the direct female speaker to be less trustworthy and likeable. In contrast, female participants were more influenced by the direct speaking woman, and perceived her as more trustworthy and likeable. The language style of male speakers affected neither their ability to influence others nor the evaluations they received.

Investigating the role of nonverbal behaviors, Carli, LaFleur, and Loeber (1995) found that men reacted negatively to a woman with a "high task style"—defined as "a rapid rate of speech, a firm tone of voice, moderate voice volume, few hesitations, an upright posture, calm hand gestures, and a moderately high amount of eye contact" (p. 1034). Compared to a man with the same style, the high task woman was perceived by male participants as less likeable and more threatening. In addition, the high task woman had less influence on men's opinions than did the high task male and less than a woman with a "social" presentation style (which included a more pleading tone of voice and a friendlier facial expression than the high task presentation style). More generally, being liked by male participants played a greater role in how much influence female speakers exerted than it did for male speakers. Nonverbal styles and gender had relatively little effect on the responses of female participants.

Rudman's (1998) research examined both speech styles and nonverbal behaviors in combination. In these studies, both male and female participants perceived self-promoting women and men (who spoke self-confidently about their past accomplishments and made direct eye contact) as more competent than those who were self-effacing (who spoke more modestly and tentatively and avoided direct eye contact). However, self-promoting women were liked more than self-effacing women only by men who expected to work with that particular woman on an interdependent task. A similar pattern prevailed for ratings of the likelihood of being hired for employment. Across a variety of conditions, female subjects never liked or wanted to hire a self-promoting woman more than a self-effacing woman, though they did like and want to hire a self-promoting man more than a self-effacing man.

Taken together, these studies demonstrate the persistent difficulty that women have in obtaining both respect and liking from both men and women. For the most part, adopting a more "masculine" style (direct language, high task nonverbal behaviors, self-promoting) did increase the perceived competence of both men and women. But unlike competent men, women perceived as competent were often not liked—sometimes by men (Carli, 1990; Carli et al., 1995), sometimes by women (Rudman, 1998). Moreover, the usual benefits of perceived competency, such as being seen as suitable for hiring and influencing people's opinions, did not necessarily occur for competent women. Indeed, competent women were sometimes viewed as less suitable for hiring and less influential than their male peers and/or a female with a more "feminine" style who was perceived as less competent. These studies strongly suggest that, on average, life in the workplace presents complicated challenges to women that men do not face. At least for men in the dominant racial, ethnic, and socioeconomic class, there is usually some basic harmony among competence, respect, liking, influence, and career success. For women, there is still considerable dissonance.

Behavioral Freedom: Perceptions by Others and by Oneself

As mentioned earlier, the meta-analysis by Eagly and her colleagues (1992) on gender and the evaluation of leaders indicated that while women were devalued for adopting stereotypically masculine leadership styles (e.g., autocratic), men were not devalued for adopting stereotypically feminine leadership styles (e.g., democratic). Based on these findings, Eagly et al. concluded that "It appears that all other factors being equal, men may have greater freedom than women to lead in a range of styles without encountering negative reactions" (p. 16). The research that we have just reviewed on the effects of self-presentation is also consistent with this proposition. In women's lives, personal and professional, this more narrow range of "acceptable" behaviors creates both the sense, and sometimes the reality, that they are walking a tightrope, with harmful consequences awaiting any misstep.

Perceptions of the range of behavioral freedoms available to women can have other important effects. Beyer and Bowden (1997) documented the disadvantages for women engaged in tasks that are not stereotypically perceived as appropriate for females. In this study, both males and females who engaged in gender-incongruent tasks had lower expectations, performance, and self-evaluations than did those who engaged in gender-congruent tasks. However, men were more positive and successful than women on the gender-neutral task. There was also a specific disadvantage for women on the masculine task. Accuracy of performance estimates did not differ between men and women on either the feminine or neutral tasks, but female participants significantly underestimated their success on the masculine task.

For women, then, the stereotypically feminine task was the only one on which they had positive expectations, performed well, and could provide an accurate estimate of their actual success. Men, on the other hand, had positive expectations and good performance on the neutral as well as the masculine task and never underestimated their accuracy on any of the three tasks. Reflecting on these results, Beyer and Bowden (1997) commented that the psychological processes displayed here could have widespread and long-lasting effects, affecting "the kinds of tasks, courses, careers, and so forth that one chooses, and one's persistence and performance in those areas" (p. 169).

Steele's (1997) work on stereotype threat suggests that the impact of stereotypes on performance has a long reach: Self-relevant negative stereotypes can still affect even those who have not internalized the inferiority feelings and low expectations of success generated by the stereotype. Those who are vulnerable to this kind of situational stereotype threat are those who have achieved, despite the stereotype, in the very domains to which the stereotype applies (e.g., African Americans and individuals from a low socioeconomic background who achieve in school; women who achieve in math and science). Since their definition of self rests, in part, upon their achievements in these domains, having others believe and/or their own behavior confirm the stereotype would threaten an important part of their identity. Situations emphasizing the existence of such stereotypes produce impaired performance on stereotype-relevant tasks and prompt avoidance of identification with the group stigmatized by the stereotype (Brown & Josephs, 1999; Croizet & Claire, 1998; Steele, 1997; Steele & Aronson, 1995).

Although no research has yet been published on the relationship among stereotype threat, gender, and faculty behavior, the potential connections seem clear. The social psychological position of women psychology faculty often bears a close resemblance to that of other individuals whose achievements occur in domains for which they are stereotypically viewed as unqualified. They are minorities, easily identified as different from the majority, subject to bias and discrimination, confronted with complicated issues of effectiveness in self-presentation, and required to walk a narrow behavioral line in order to succeed. If this analysis is correct, conditions that highlight stereotyped beliefs would make it harder for these women to perform as well as they can under more benign conditions. The concept of stereotype threat also helps explain the unrelenting pressure to prove themselves experienced by high achievers in an unlikely domain: "the work of dispelling stereotype threat through [the quality of one's] performance probably increases with the difficulty of work in the domain, and whatever exemption is gained has to be rewon at the next new proving ground" (Steele, 1997, p. 618).

We turn now to an examination of the obstacles, and the opportunities, that female academic psychologists face across various academic roles.

V. Academic Roles

Academic faculty roles are traditionally categorized into areas of teaching, research, and service. Although the teaching identity is particularly salient, the reality is that academic jobs are rarely awarded solely on a candidate's teaching ability, and tenure is generally not achieved simply through good teaching. Even in liberal arts colleges, new assistant professors are usually expected to establish and/or maintain a research program, making research central in the lives of full-time psychology faculty regardless of gender. In 1993, nearly 9 out of 10 full-time psychology faculty reported they were "engaged in research or other creative work" (NCES, 1993). At all academic ranks, the question of where and how teaching and research fit into a faculty member's job description is complex. Most teaching-related tasks are immediate, and they can easily overshadow more long-term demands, such as writing a research article. But neglecting one's research program can have long-term consequences. Individuals in part-time or contract positions are often in a particularly difficult situation. Their teaching demands are heavy, but unless they publish in a research area, the prospects of obtaining a tenure-track academic slot are remote.

In addition to teaching and research, faculty typically are expected to participate in service or administrative roles on campus during their careers, serving, for example, as chair of a university committee, program director in their department, head of the department's clinic or child study center, or member of their faculty senate. As they rise in rank, they are expected to demonstrate leadership beyond their institutions and provide evidence of a national reputation. There are many opportunities to serve the discipline, for example, as an officer or member of a task force for a professional association or editor of a journal (for information on women's participation in APA, see *Women in the American Psychological Association* (APA Women's Programs Office, 1996, 1999)).

In all of these roles, women have reached the highest levels of achievement and have been recognized for their excellence in teaching, their contributions to scientific knowledge in psychology, and for their vision and direction on behalf of their institution and their discipline (O'Connell & Russo, 1990).

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Teaching

Teaching plays a central role in the life of most faculty members, and it is a role most enjoy (Centra, 1993; McKeachie, 1987). As we have seen in Table 11, two out of three psychology faculty in 1993 reported teaching as their principal activity. The teaching role is particularly salient to those just beginning their academic careers and who are teaching (perhaps for the first time) in a new environment.

Demands of good teaching

The issue for many faculty is how to juggle the demands of teaching with other faculty roles. The requirements of good teaching are many, from class preparation, to exam writing and grading, to personal time with students. The time needed to adequately prepare a course is sometimes underappreciated, and this process can overwhelm new faculty. Decisions range from the mundane (e.g., choosing a textbook) to the philosophical (e.g., what type of a teacher am I?). The World Wide Web and classroom computers have opened new doors in instructional innovation, yet learning how and when to integrate them into the classroom takes time and energy (Halpern, 1998). As McKeachie (1987) noted, how faculty meet these challenges can set the tone for how they view teaching throughout their career. He further notes that new faculty may be unaware that institutions have their own norms and that deviating from those norms can have consequences (see also Caplan & Caplan, 1994). Assumptions about how to teach, which are often based on how faculty were themselves taught, may be inappropriate in one's current setting. Women faculty may face additional demands that stem from mentoring and advising students. Students prefer instructors (Kaschak, 1978) and role models of the same gender (Bowman, Kite, Branscombe, & Williams, 1999; Scott, 1992) and if there are few women to meet these needs, women faculty can quickly become overloaded. This problem is especially acute in psychology, where the majority of undergraduate majors are women, but the majority of faculty members are men (APA Research Office, 1998).

The career benefits of good teaching often depend on the academic environment. Most academic jobs are in institutions where teaching matters; fewer than 10% of new PhDs are hired by research universities, where expectations clearly center on the scholarship of research (Gaff & Lambert, 1996). The Carnegie Foundation for the Advancement of Teaching (1980, summarized in Boyer, 1990) found that just 10% of those teaching in research institutions reported teaching was "very important" to receiving tenure in their department. In contrast, 45% of those employed at liberal arts colleges rated teaching as "very important." Regardless of where they are employed, faculty may receive mixed messages about the rewards for good teaching. Good student ratings, for example, are personally validating and may be praised by other faculty and administrators. Faculty sometimes misinterpret these positive messages and conclude that good teaching will weigh heavily in promotion and tenure decisions. If this is not the norm at one's college or university, the impact of such misunderstandings on a career can be devastating. Faculty must realistically assess the role that teaching and advising should play in their academic career and balance their time and efforts accordingly.

New faculty often leave graduate school ill prepared to make these assessments. A recent study of psychology graduate students in three institutions showed that students believed they were not adequately trained to meet the demands of college level teaching (Meyers, Reid, & Quina, 1998). PhD-granting institutions are more attuned to graduate student training needs than in the past, and many have established graduate student development programs designed to prepare future college teachers (Tice, 1997). Even so, the need for teaching-related mentorships clearly extends into the first job. Despite claims to the contrary (Selby & Calhoun, 1998), most people new to the academy need mentorship and training to help them develop their teaching skills (see Chrisler, 1998; Sandler, 1992).

Teaching assignments also vary by type of institution. Whereas faculty in research institutions might teach two courses per term, some of those courses being graduate courses related to their area of specialization, those in 4-year liberal arts colleges or community colleges may have as many as four preparations per term; some outside the person's area of expertise altogether (e.g., a social psychologist might be asked to teach abnormal psychology). Course assignments are also, to some extent, associated with faculty gender. Women are more likely to teach undergraduates, whereas men are more likely to teach graduate students (see Chrisler, 1998). Women are concentrated in areas where teaching loads are heaviest and/or where decisions based on teaching ability are likely to have the greatest impact, such as in 2-year institutions or in part-time appointments.

Evaluations of teaching effectiveness

At the college level, teaching effectiveness is evaluated in three major ways: student ratings, peer review, and review of teaching portfolios. Student ratings are typically gathered by standardized ratings scales such as the Students' Evaluation of Educational Quality (SEEQ; Marsh, 1982). Students report their perceptions of course-related characteristics, such as the professor's knowledge, preparation, ability to hold their interest, and fairness. Often, students are asked to compare faculty with others professors. Peer evaluations are usually conducted by colleagues within a department who visit the classroom and offer feedback or criticism of the instructor's teaching method. In some colleges and universities, members of a teaching development office make these assessments. Peer evaluations can take the form of a checklist (e.g., appropriate teaching behaviors were or were not observed), rating scales (e.g., questions similar to those on student rating scales), written feedback (e.g., a letter to the instructor outlining strengths and weaknesses), or verbal feedback. Teaching portfolios are developed by the instructor and usually include a narrative statement of the instructor's philosophy of teaching. Instructors typically provide documents that illustrate this philosophy, such as syllabi or representative course assignments. This method differs from student and peer evaluation in that the instructor has complete control over the information provided in the portfolio.

Teaching evaluations serve two separate goals: improvement of teaching and personnel decision making (e.g., Centra, 1993; McKeachie, 1997). For the former goal, instructors gather information primarily for the purpose of teaching development. Hence, the collected information might be more or less structured, depending on the knowledge the professor hopes to gain. For the latter goal, information is typically formal, with evaluations focusing on global measures of teaching effectiveness. Student ratings and peer evaluations obtained for this purpose usually end up in a professor's personnel file and will probably be part of his or her tenure review, salary review, or both. Faculty should consider carefully the amount and type of information they want to gather for each purpose and, in particular, make certain that information collected solely for teaching improvement purposes will not later end up in their personnel file. If, for example, instructors experiment with teaching methods, they will probably not want evaluations of these endeavors to become part of a personnel decision until the effectiveness of the method has been established. Midterm teaching evaluations can be utilized to correct problems with a course but should not be part of one's personnel file (Centra, 1993; McKeachie, 1994).

Major teaching awards

Women have excelled as teachers of psychology, and this excellence has been recognized in national teaching awards. Nine of the 22 recipients of the American Psychological Foundation Distinguished Teaching Award have been women. Those recognized include Diane Halpern, recognized for the advancement of quality education through her work applying the principles of cognitive psychology and psychometrics to educating future thinkers; Patricia Keith-Spiegel, recognized for her contributions to undergraduate education and her contributions to ethical teaching practices; and Margaret Matlin for excellence in student-centered teaching and authoring five outstanding textbooks.

The Society for the Teaching of Psychology (APA Division 2) annually recognizes outstanding teachers in four categories: 4 year, 2 year, high school, and early career; 40% of those awardees have been women. Examples include Virginia Nichols Quinn, recognized for innovative teaching at the community college level and in particular for her work with nontraditional college students; Amy Galloway, an early career winner honored for excellence in teaching and for innovative mentorship of fellow graduate student teachers; and Barbara Nodine, for her innovations in writing across the curriculum as a way to encourage thinking and reasoning.

Women have represented one third of all G. Stanley Hall speakers and, in the last decade, have represented 43% of those distinguished speakers. These women have represented an array of subdisciplines: Florence Denmark spoke on the psychology of women, Anne Anastasi presented work on testing, Elizabeth Capaldi lectured on motivation, and Larue Allen discussed diversity and teaching, to name a few.

Contributions to teaching and the curriculum

Women have led the way in advocating student-centered, participatory models of instruction and in encouraging students to take responsibility for their own learning (see Ginorio, 1998, for an example).

Student participation is greater in the classrooms of women professors than in the classrooms of men professors, although the proportion of time women and men spend in structured classroom activities, such as lecturing or going over assignments, does not differ (Statham, Richardson, & Cook, 1991). Brooks (1982) found, for example, that women professors devoted nearly twice as much time to student participation than did men professors.

Women psychologists have also been leaders in efforts to transform the psychology's curriculum and integrate information about gender and ethnicity in psychology courses (Madden & Hyde, 1998; Madden & Russo, 1997). APA's Division 35 (Psychology of Women) has been successfully organizing a preconvention continuing education workshop since 1987. Having celebrated its 11th edition at the 1998 APA convention, the "Teaching Workshop: Psychology of Women and Gender" continues to be an important source of training for large numbers of psychologists. Special features of the workshop include presentations by faculty on teaching strategies, "mentoring" in small special interest groups led by senior scholars with experience in a number of specialty areas related to women and gender, and "networking."

Creating a feminist classroom goes beyond merely just "good teaching." Feminist pedagogy focuses both on how knowledge is created and how it is disseminated in the classroom. Principles that exemplify this process include making certain that all voices are encouraged, valued, and heard; being conscious of, and explicitly addressing, the issues of differential power, privilege, and oppression; acknowledging the power of the teaching role and seeking ways to empower students in the learning process; recognizing and accommodating multiple learning styles; and respecting the different contexts of students' lives (see Kimmel & Worell, 1997).

Feminist psychologists have articulated principles for curriculum change in psychology programs (Chin & Russo, 1997) that have been used as a model for developing gender-sensitive curricula for the health professions. A concrete way that women have influenced the curriculum has been through accreditation guidelines for applied programs in clinical, counseling, and school psychology. Criteria in the 1986 accreditation guidelines (Appendix B) mandated curricula that helped students develop knowledge and skills related to diverse populations, including men and women, and specifically encouraged faculty recruitment of women, particularly senior women.

APA's Committee on Women in Psychology (CWP) worked with the Committee on Accreditation (CoA) to increase the number of accreditation site visitors with demonstrated sensitivity to issues of diversity. This has included collecting and forwarding vitae of potential site visitors to APA's accreditation office, encouraging CWP network members to participate, and requesting an accurate listing of women and ethnic minorities currently serving as site visitors. CWP also requested the CoA, when reviewing graduate programs, to consider four factors that may impede women's ability to successfully complete graduate training: the lack of flexibility of the program's structure, lack of representation of women across subareas, unequal distribution of financial aid allocations, and availability of curriculum issues relevant to women.

In 1996 a new set of accreditation criteria were released that included Domain D: Cultural and Individual Differences and Diversity in the *Guidelines and Principles for Accreditation of Programs in Professional Psychology* (see Appendix B). In this area, programs were to be evaluated for their commitment to cultural and individual differences and diversity. The revised accreditation guidelines in general were less proscriptive than the 1986 criteria; and Domain D is a much weaker statement of support for training related to diversity or recruitment of women and minority faculty. In recognition of this, CWP asked to review copies of the materials used to help site visitors understand their responsibilities under Domain D. The committee also asked to review the self-study guidelines and site visitor report model documents and to receive copies of the nonconfidential minutes of CoA meetings. At this writing, the issues are unresolved, and the accreditation process continues to be of concern.

With regard to textbooks, progress has been uneven. In a review of the presentation of research methods in 27 introductory and 12 developmental psychology textbooks, Peterson and Kroner (1992) reported that such sections did not identify gender as an important factor in research, rarely cited the gender of participants in research reports and referred mostly to men when they did, and never examined the danger of generalizing from one gender to another. This lack of gender identification contradicts a clear requirement in APA's *Publication Manual*, beginning with the 1974 edition, that researchers routinely report sex and age. In a line-by-line content analysis of the same 12 developmental texts, Conti and Kimmel (1993) counted the average length of text on gender differences, gender role development, and life events unique to women (e.g., menstruation, pregnancy, menopause, violence against women, and sexism). Only one topic of the 67 evaluated, gender role development, received more than a paragraph in any book, and most topics were mentioned with only a few lines. When two editors of feminist psychology journals rated each text's section on gender role development on the extent to which it included feminist theory and data, only one text received a high rating from both reviewers.

Bronstein and Paludi (1988) found some improvement in inclusiveness of introductory psychology textbooks between 1981 and 1988. Ten of 13 had some discussion of gender roles (although only 4 mentioned other sociocultural factors in socialization). Denmark (1994) also found that the inclusion of women psychologists had improved since a previous study in 1983. Her review of 20 textbooks in introductory, social, developmental, and abnormal psychology found that most introductory, social, and developmental psychology books discussed a variety of topics related to gender, but abnormal psychology books discussed fewer such topics than the other books, and feminist approaches to therapy were virtually absent. She also found that discussions of women in all areas almost exclusively referred to research on White women. Other studies confirm that representation of ethnic minority women or other underrepresented groups continues to be abysmal (Bronstein & Paludi, 1988; Conti & Kimmel, 1993; Denmark, 1994; Peterson & Kroner, 1992; Reid, 1994; Whitten, 1993). With an eye toward improving this situation, APA's Board of Educational Affairs' Task Force on Diversity Issues (1998) at the precollege and undergraduate levels of education in psychology has developed an annotated bibliography that references scholarship on gender, ethnicity, sexual orientation, and disability for a number of psychology courses.

Obstacles for women as teachers

Women are more likely to be in institutions with heavy teaching loads and where teaching evaluations have the greatest impact. For these women, teaching is of primary importance, and gender biases related to the teaching setting and in teaching evaluations have greater potential for harm.

Gender biases in the classroom. The stereotypical college professor is a man who lectures to the class and, as an authority, imparts his knowledge to his students. Arguably, as was discussed earlier, these expectations create problems for women professors, who do not fit the stereotypes of an authority figure. First, women's classrooms are less likely to conform to this stereotype. Crawford and MacLeod (1990) asked students to report their perceptions of what a class was like for them. They found that women professors reportedly elicited somewhat more active student participation. Men professors reportedly engaged in more negative and offensive behaviors. Statham et al. (1991) also reported gender differences in professor attitudes toward students. Women professors in their sample more often viewed students as collaborators and contributors to the learning process; men professors were more likely to focus on ways to present the material more effectively. These authors also found that women and men viewed their role as authority figures differently. At the lower ranks, women were more likely to believe they had to establish authority, whereas men were more likely to report knowing the students saw them as authorities before the class began.

Students report that women professors give them more time and personal attention than do male professors (Bennett, 1982; Crawford & MacLeod, 1990). Yet these same students hold women to a stricter standard of professionalism than they do men; women are negatively evaluated when they fail to meet student expectations about how often they should be available. Reflecting these biases, evidence suggests students treat women and men professors differently (Sandler, 1992). Women report a variety of negative experiences in the classroom, ranging from a perception that they are not taken seriously, to direct questioning of their credentials, to hostile and rude responses from students. Although male faculty also sometimes experience these behaviors, this rarely occurs to the same degree it does for women faculty. Brooks (1982) found that male students interrupted both male and female professors more often than female students did, but that male students were particularly likely to interrupt when the professor was a woman. When professors choose a less structured classroom style, women professors perceive more negative student reactions than do men professors (Statham et al., 1991). Similarly, women professors who are described as socializing outside of the classroom receive higher ratings than women not so described, but perceptions of male professors are unaffected by out-of-class socializing (Kierstead, D'Agostino, & Dill, 1988).

These findings highlight the potential for gender bias in the college classroom—women professors face a double bind that stems from expectations about both the faculty role and about women's roles in the United States. Faculty members are expected to be directive, assertive, and knowledgeable; women are expected to be warm, nurturant, and supportive. Women faculty who are warm and nurturant fare better in students' eyes than women who are not (see Bennett, 1982), but even these women walk a fine line. If they are too nurturant, they are not behaving as a professor should. If they are not nurturant enough, they are not behaving as a woman should (see Basow, 1998; Sandler, 1992). Straddling this line requires finesse. As Statham et al. (1991, p. 6) put it, "the mode of resolving these conflicts is crucial. Whether she resolves the conflict along gender-stereotypic or gender-innovative lines, such resolution might create secondary problems. For example, if she adopts a male-typed teaching style, she might be resented by her students; if she adopts a female-typed teaching style, she might be judged incompetent." In contrast, the male role and the professor role are not incongruent; because of this, men professors do not face this role conflict. Resolving this double bind is complicated because expectations for women professors differ by student gender. Winocur, Schoen, and Sirowatka (1989) found that male students devalued women who used an affiliative lecture style (greater eye contact, more smiling, more relaxed presentation). In contrast, female students devalued women who used an instrumental lecture style. These differences did not emerge for men lecturers. The most visible evidence of how well women resolve this conflict comes from evaluations of teaching effectiveness.

Gender biases in teaching evaluations. Teaching effectiveness is best determined by multiple measures: Student ratings, peer ratings, and teaching portfolios provide complementary information about the instructor's style and ability (Centra, 1993). Certainly, instructors who can demonstrate quality teaching on all dimensions have an advantage over those with more mixed records. Moreover, gender-based inequities may be less likely to emerge in some indices of teaching effectiveness than others. Peter Seldin (personal communication, November 16, 1998) noted that teaching portfolios are likely to be less subject to gender bias than other forms of evaluation because their content is under the faculty member's control. However, no research to date has specifically addressed this issue, and no work examining gender biases in peer evaluations could be identified. Further, the validity of teaching portfolios has yet to be established.

Peer ratings. Although researchers agree that multiple measures of teaching effectiveness are necessary, the potential for bias in peer ratings should be recognized (Marsh & Roche, 1997). Peer ratings are much more reliable when observers are trained and when their assessments focus on specific observable behaviors (Marsh, 1982). As with all measures of teaching effectiveness, peer evaluations should be conducted with established, well-validated measures.

Specific gender bias in peer evaluations has received little or no attention despite the potential for such bias. Research has found a clear gender bias in peer-review of postdoctoral fellowship applications (Wenneras & Wold, 1997). As mentioned earlier, women and men have differing classroom styles, and people may be biased against styles that differ from their own. If women employ nontraditional teaching styles, and if the raters do not appreciate these styles, the result may be detrimental to their performance ratings. At a minimum, peer reviewers should be made aware of the potential for bias and should be educated about various pedagogical techniques and the philosophies behind them before evaluating others' teaching. Students report the overall climate is better in smaller classes and in advanced classes and that interactions are most personalized in small classes with women instructors (Crawford & MacLeod, 1990). Large classes typically receive the lowest student ratings. Thus, even though there is some evidence that the gender difference in ratings diminishes as class size increases, women who are assigned primarily to teach lower level and/or large introductory classes may nonetheless receive lower teaching evaluations than their male counterparts simply because of their course assignments (Bernstein & Burke, 1995).

All individuals making personnel decisions based wholly or in part on student evaluations should be educated about the potential for bias in faculty evaluations. Indeed, McKeachie (1997) has argued that one of the major problems with formal teaching evaluations is that personnel committees misunderstand

and misuse the available information. It is easy to rely on numerical indices to make judgments of quality teaching, but evaluators must carefully consider the source of those numbers and the factors that might affect them. Comparisons among faculty should be made cautiously; it is easy to overestimate the significance of rating differences (Centra, 1993). Differences of even 10% are unlikely to have any practical meaning. Summary judgments are better indicators than individual items, but relying solely on global scores may mask an instructor's particular strengths. Similarly, comparisons between different classes are inappropriate because differences in content, teaching method, and other variables also affect teaching evaluations (McKeachie, 1997).

Student evaluations. Unfortunately, more often than not, teaching performance is evaluated solely on student ratings. Tenure and promotion decisions, as well as campus and national teaching awards, are often heavily influenced by these student ratings. At some institutions this is the norm; in some cases a candidate fails to provide other information to the review committee. Student ratings are undoubtedly useful for teaching improvement (Marsh & Roche, 1997; McKeachie, 1997). Even so, the potential for bias makes their ubiquitous use in personnel decisions suspect (McKeachie, 1997). Sources of potential bias include teacher characteristics (e.g., d'Apollonia & Abrami, 1997), class size (Crawford & MacLeod, 1990; Feldman, 1984), course grade (Greenwald & Gillmore, 1997), and instructor gender (see Basow, 1998; Centra, 1993, for reviews). As Centra (1993) noted, considering the cumulative effects of these biases is also important. That is, any individual characteristic may not have undue influence, but the combined effects of these factors may indeed produce a biased rating.

A meta-analysis of student evaluations showed no overall main effect for gender of teacher (Feldman, 1993). That is, when student ratings of women and men faculty are compared, results usually indicated similar evaluations. Drawing conclusions from such global analyses can be misleading, however. First, Feldman's (1993) review included only 28 studies for which effect sizes could be computed. Of these studies, 17 showed women receive higher ratings, and 10 showed men receive higher ratings. Although no statistical test of effect size homogeneity is reported, it is highly unlikely that these effect sizes are homogeneous. Second, a global analysis overlooks the subtle ways that student ratings can be biased and do not take interaction effects into account. Perhaps because of the relatively small number of studies in his meta-analysis, Feldman does not report the statistical tests typically used to evaluate potential moderators. Yet, a number of factors might differentially affect male and female faculty members' numerical student opinion ratings, including the types of questions asked, gender of the rater, and the faculty member's discipline.

Evaluation biases likely reflect a combination of the professor's classroom style and the students' expectations. Women fare better than men on items reflecting warmth and concern for students (e.g., Basow, 1995; Bennett, 1982) but do less well on items tapping dynamism/enthusiasm (e.g., Marsh & Ware, 1982) or knowledge of subject matter (Bernstein & Burke, 1995; Feldman, 1993). Perception of faculty concern and availability may differ by ethnicity, however. One study found that minority men faculty received the most favorable evaluations on these measures, White women and men fell in between, and minority women received the least favorable evaluations (Bernstein & Burke, 1995).

Male students are especially likely to give women faculty low ratings, compared to men faculty (Basow, 1995; Basow & Silberg, 1987; Bernstein & Burke, 1995). In contrast, women students often evaluate women faculty particularly well (Basow, 1995). Rank is a factor, however. One study found that male students gave substantially lower ratings to female full professors compared to male full professors, while women students gave higher ratings to female full professors than to male full professors (Bernstein & Burke, 1995).

These complexities may vary by discipline, tenure status of the instructor, and expected grade. Overall, however, women's ratings appear to be affected by extraneous variables more so than men's (see Basow, 1998, for a review). The complexities surrounding student ratings, as noted earlier, suggest that caution should be used when interpreting them. Unfortunately, these sources of bias may not be obvious to those making personnel decisions based on student evaluations. Understanding these biases and their impact requires a sophisticated understanding of the social science literature, which decision-makers may lack.

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Biases specifically related to instructor gender include the gender-typed characteristics of the instructor, the gender typing of the discipline, teacher rank, and the types of questions asked (see Basow, 1998, for a review). We previously described how professors' style of presentation and students' gender-associated expectations can result in negative ratings of women's teaching. Discrimination is also more likely for individuals who teach in disciplines that are nontraditional for their gender. Evaluations of women chemistry instructors, for example, are more likely to be gender biased than are evaluations of women English instructors (Basow, 1995; Basow & Silberg, 1987; Kaschak, 1981). Women at the beginning stages of their career are probably more vulnerable to gender-based biases than are women of higher rank (see Basow, 1998; Kite & Balogh, 1997). This may be because more established women have greater control over their teaching load. Evidence suggests that instructor effectiveness varies by course type (e.g., Murray, Rushton, & Paunonen, 1990), so more established women simply may be able to teach in their niche. It may also be that women devote more time and energy to teaching than do men (Winocur et al., 1989) and learn to overcome teaching difficulties. A less optimistic view is that women who have negative classroom experiences drop out of teaching altogether. Answers to such questions deserve attention. Similarly, the extent to which teaching evaluations are influenced by instructor ethnicity has received little attention. With so few minorities teaching in the academy, overall patterns are difficult to detect, but efforts should be made to examine this question.

Research

According to a number of indicators—some quantitative and some qualitative—women have made substantial progress over the last 25 years in their contributions to research in psychology in authorship of articles, participation in the publication process, receipt of grants and awards, and contributions to knowledge.

Authorship of articles

Gannon, Luchetta, Rhodes, Pardie, and Segrist (1992) analyzed articles published in eight journals between 1970 and 1990, covering four areas in psychology: developmental, clinical, physiological, and social. The journals were *Developmental Psychology, Child Development, Journal of Abnormal Psychology, Journal of Consulting and Clinical Psychology, Psychophysiology, Journal of Behavioral Medicine, Journal of Personality and Social Psychology,* and *Journal of Experimental Social Psychology.* Half of these journals are published by APA, and half are not. Gannon and colleagues found significant trends over time in the gender of the first author of articles for seven of the eight journals, the exception being *Psychophysiology*. The data are shown in Table 17 (see p. 29). However, progress is uneven across areas. By 1990, women had progressed to the point of authoring more than 50% of the articles in the premier journals in developmental, whereas they authored only 27% to 36% of articles in clinical journals.

An analysis of all 1997 issues of the four APA journals indicated that, of those articles for which the gender of the first author could be identified, 61% of first authors were women in *Developmental Psychology;* the corresponding statistics were 32% for *Journal of Abnormal Psychology,* 33% for *Behavioral Neuroscience,* and 29% for *Journal of Personality and Social Psychology* (Hyde, unpublished analyses). These statistics indicate little change from 1990, except for a continued upward trend in female authorship for *Developmental Psychology.* In 1997, the editor of *Developmental Psychology* was a woman, Carolyn Zahn-Waxler; the editor of *Behavioral Neuroscience* was also a woman, Michela Gallagher.

In regard to the gross measure of productivity, counts of number of articles published, a study by Cohen and Gutek (1991) is relevant. They surveyed a random sample of members of APA Divisions 9 (Society for the Psychological Study of Social Issues) and 35 (Psychology of Women). The men reported that they had published 2.88 articles on average before earning the PhD, compared with 1.61 for women. Men had published 10.77 articles as assistant professors compared with 5.53 for women. Men had published 14.8 articles as associate professors compared with 8.69 for women, and men had published 29.55 articles as full professors compared with 19.07 for women. (All gender differences were statistically significant, though age was not controlled.) It is difficult to interpret these differences, however, because of crucial confounds in the data, including age. As would be expected from the data presented above, the men in this sample were, on average, older (mean age 50) than the women (47) and had received their PhD earlier (1968 vs. 1973). Differences in productivity as a full professor, therefore, might be due to men's

Table 17
Percentage of Articles With Female First Authors in Eight Journals (1970-1990)

Journal	1970	1975	1980	1985	1990
Developmental Psychology	27	37	42	48	53
Child Development	30	41	47	47	61
Journal of Abnormal Psychology	12	8	20	28	27
Journal of Consulting and Clinical Psychology	14	14	23	23	36
Psychophysiology	18	15	16	8	27
Journal of Behavioral Medicine	—[a]	19	13	16	48
Journal of Personality and Social Psychology	6	16	22	25	30
Journal of Experimental Social Psychology	5	14	12	14	41

Note. From "Sex Bias in Psychological Research: Progress or Complacency?" by L. Gannon, T. Luchetta, K. Rhodes, L. Pardie, & D. Segrist, 1992, *American Psychologist, 47*, pp. 389-396. Copyright 1992 by the American Psychological Association.

[a] Too small to estimate.

longer time in that rank. Indeed, when year of first professional job was controlled, the gender difference in productivity at the full professor level vanished.

Perhaps the most elegant analyses regarding gender differences in productivity—what some have called the "productivity puzzle" (Cole & Zuckerman, 1984)—were conducted by Xie and Shauman (1999). They used four large, nationally representative, cross-sectional surveys of college and university faculty conducted in 1969, 1973, 1988, and 1993, aggregating across all the sciences, including the physical sciences, biological sciences, and social sciences. They expressed the productivity gap as a ratio (converted to a percentage) of the mean number of women's publications to the mean number of men's publications. The gender gap in productivity narrowed from 60% in 1969 to 75%-80% in the late 1980s and 1990s. The gender gap narrowed significantly and, in some cases, became nonsignificant when the following variables were controlled: field of specialization, time lag between bachelor and doctoral degrees, years since doctoral degree, type of institution (e.g., research university, teaching college), rank, teaching hours, research funding, and research assistance.

In short, gender differences in structural variables accounted for most of the gap in productivity. Controlling for marital status also reduced the gender gap; married scientists are more productive than unmarried scientists, and a larger percentage of women scientists are unmarried. The researchers concluded that the gender gap in productivity declined from the 1960s to the 1990s in large part because the gender gap closed for a number of structural variables, such as type of institution (e.g., the percentage of women on the faculty at research universities has increased). Nonetheless, a gender gap remains in many structural variables and in productivity as measured by article count.

Scientific publication process

Data on women who served as editors, associate editors, and reviewers for APA journals from 1980 through 1996 are shown in Table 18 (see p. 30). Note that percentages are expected to fluctuate more for editors due to small sample size (around 30 total) and should fluctuate less with the larger groups of associate editors and consulting editors/reviewers. With editorships, there are signs of progress, but slow progress, in recruiting women into these prestigious and powerful roles. Women were about 5% of editors of APA journals in the early 1980s, compared with approximately 15% currently.

Women have made progress and are better represented as associate editors (currently about 40%) and consulting editors/reviewers (currently about 31%). Clearly it is important to continue to remind editor search committees to recruit qualified women and to remind editors to appoint qualified women as associate editors and consulting editors.

Table 18
Percentages of Women Editors, Associate Editors, and Consulting Editors or Reviewers for APA Journals (1980-1996)

Year	Editor	Associate Editor	Consulting Editor or Reviewer
1980	9.1%	15.6%	21.1%
1985	15.0%	20.8%	21.8%
1990	18.2%	25.9%	25.9%
1996	15.2%	40.0%	31.2%

Note. Data on gender of editors prior to 1979 has not been compiled. Statistically one would expect more fluctuation in the percentages for editor because the total number in 1996 is small (33), whereas the percentages should be more stable for associate editors (85 total) and consulting editors and reviewers (8,150 total).
From Women in the American Psychological Association by the American Psychological Association, Women's Programs Office, 1999, Washington, DC.

The APA Committee on Women in Psychology formed a Working Group on Women Journal Editors in 1995. They surveyed current and past editors of APA and division journals and asked detailed questions about potential inequities in support for women and men journal editors. In the 1990s the average honorarium for women editors was $7,023 compared with $7,450 for men. While honoraria are fixed for all editors of APA journals, discrepancies might occur in office expenses, which are negotiated. Support—from APA, divisions, and the employer—for women and men editors was about equal. Reports of the factors that made them want to become a journal editor did not differ between men and women; the most frequent reason was to help advance the field. Neither did men and women differ in reports of factors that made them hesitate to become a journal editor; the most common factor was demand on their time and energy. However, a methodological limitation to the study should be noted: Only women and men who had actually become editors were surveyed. Missing were all the people who had been recruited to be an editor and had refused. It may be that women are more likely than men to refuse when they are recruited, generally due to time pressures, in many cases because of responsibilities for children.

Women have also had a profound impact on the scientific publication process through the development of guidelines for the use of nonsexist language in APA publications and other changes to promote equity in the APA *Publication Manual* (see Russo, 1999, for a discussion of this impact). Such research was used to argue for developing guidelines for avoiding sexist language provided in APA's *Publication Manual* (APA, 1994, and earlier editions). Such changes were a result of coordinated efforts by APA's Committee on Women in Psychology and Division 35, and today they influence all research publications in psychology. The impact of this success should not be underestimated, for the *Publication Manual* shapes the language of research for many academic disciplines beyond psychology. In addition, guidelines for publication credit have been clarified and disseminated in APA's *Ethical Principles of Psychologists* (APA, 1992).

Federal research funding

Table 19 (see p. 31) presents data on funding to women principal investigators (PIs) from the National Science Foundation [NSF] (1998). Women were funded at a rate almost identical to the overall funding rate. Perhaps more important, while the total number of awards rose by 24% from 1988 to 1997, the number of awards to women PIs rose by 92% over the same decade. This was due largely to the fact that substantially more proposals were being submitted by women, an increase of 49% from 1988 to 1997. In short, these data indicate that women scientists have made substantial progress in seeking federal funding and that their research is funded at the same rate as men's. Nonetheless, it is important to understand that there are generational issues involved in the funding picture. Many senior faculty (predominantly men) began their careers at a time of generous federal funding. Just as women began making inroads in scientific careers, funding was cut back, and the need for strong advocacy for social and behavioral science research funding persists.

Major scientific awards

Women's research is being recognized by the most distinguished awards in the field, those that are earned only by the most outstanding scholars. For example, for APA's award for Early Career

Table 19
National Science Foundation (NSF) Grants Awarded to Women (1988-1997)

	All Proposals		Women PIs	
Year	Number	% Funded	Number	% Funded
1988	27,438	29	3,577	28
1989	27,593	31	3,632	32
1990	28,876	32	4,006	34
1991	28,900	34	4,734	34
1992	30,361	34	4,456	34
1993	30,043	31	4,480	33
1994	30,440	33	4,844	34
1995	30,746	31	4,938	32
1996	30,272	30	5,170	36
1997	30,117	33	5,341	36

Note. PI = principal investigator.
Constructed from the National Science Foundation files BFA IBD.

Contributions to Psychology, women won 10 of the 32 awards from 1990 to 1997. Examples of award winners include Dare Baldwin, a developmental psychologist recognized for her groundbreaking research that has advanced understanding of the subtle interactions among cognitive, social, and emotional development; cognitive psychologist Fernanda Ferreia, for her wide-ranging contributions to the most basic problems in psycholinguistics, including language comprehension and language production; Caroline Palmer in the area of perception, for pioneering research in music cognition and performance; Terrie Moffitt for research in psychopathology, particularly the longitudinal developmental precursors of juvenile delinquency; and social psychologist Patricia Devine for her research on prejudice. It is clear that a generation of young women is having a remarkable impact on scientific psychology.

The APA award for Distinguished Scientific Contributions goes to senior researchers for career contributions. Even at this very senior level, women won 7 of the 24 awards from 1990 to 1997. These outstanding women researchers include social psychologist Ellen Berscheid, for her pioneering research on attraction and relationships; Shelley Taylor, who has made outstanding contributions in social psychology and is arguably one of the founders of the field of health psychology (Taylor, 1997); and Rochel Gelman, who has conducted landmark studies on preschool children's understanding of number and causality, thereby transforming the field of cognitive development. Women such as these, who earned their PhDs in the decades when 20% or fewer of the degrees went to women, have had a remarkable impact on psychological science over the last 3 decades and more.

Contributions to psychological knowledge

With the rise of the field of the psychology of women (feminist psychology) in the 1970s, women psychologists played critical leadership roles and contributed enormously to research on the lives and circumstances of women. Women have also contributed important research across the broad range of specialties in psychology. Space limits a comprehensive review of all this literature; and what follows is a select review of these contributions.

Advances in the psychology of women. APA Division 35, Psychology of Women, was founded in 1973. The first issue of the division's journal, *Psychology of Women Quarterly*, appeared in 1977. The journal continues to flourish, and with rejection rates for submitted manuscripts in the range of 80% to 90% (which is comparable to APA and other division journals), continues to publish articles of the highest quality. The vast majority of psychology of women researchers are themselves women, so when we speak of progress in that field, we speak of progress made mainly by women researchers.

It would require several books to begin to catalog the progress made in research on the psychology of women. For example, a count of APA's PsycLIT database of psychology publications revealed that from

1974-1979, there were only 535 articles mentioning gender and 4,815 mentioning women or gender. In contrast, between 1990 and March 1995, there were 7,410 articles mentioning gender and 17,256 articles mentioning gender or women (Madden & Russo, 1997). To summarize some of the most significant advances, we might consider progress in theory, research methods, life span development of girls and women, psychological gender differences, women and work, psychological aspects of women's health, female sexuality, women in relationships, violence against women, and women and mental health (for more extended discussions, see textbooks such as Hyde, 1996; Lips, 1999; Unger & Crawford, 1992; Yoder, 1999). Here we will consider advances in theory, research methods, and knowledge about violence against women.

Theoretical advances have been made at macro- and microtheory levels. Sandra Bem's (1981) gender schema theory can be viewed as a macrotheoretical advance insofar as the theory has broad applications in many aspects of human life. Gender schema theory represents a cognitive approach to understanding gender development and the central role that gender plays in human processing of information. According to Bem's formulation, a gender schema is a person's general knowledge framework about gender; it processes and organizes information on the basis of gender-linked associations. Children learn this network of gender-linked associations from their culture; they are then motivated to conform to gender roles because the gender schema becomes linked to self-concept. Throughout life, then, we continue to process information—especially information about people—based on our gender schema.

Differences in the behavior of women and men have a "now you see it, now you don't" quality that has challenged gender theorists to explain them. In response, Deaux and Major (1987) offer a sophisticated, context-centered model that focuses on the display of gendered behaviors. They conceptualize gender as "a component of ongoing interactions in which perceivers emit expectancies, targets (selves) negotiate their own identities, and the context in which interaction occurs shapes the resultant behavior" (p. 369). This model is important because it incorporates aspects of the person in interaction with aspects of the situation in explaining behavior.

As another example of theoretical advances, Susan Fiske (1993) has proposed a model of the ways in which power and stereotypes exert mutual influence on each other. Two processes are involved: (a) Stereotyping exerts control or power over people, pressuring them to conform; stereotyping therefore maintains the status quo; and (b) powerful people tend to stereotype less powerful people far more than the reverse. This theory can be applied specifically to gender stereotypes and power relations between women and men. Fiske's work was crucial in the favorable decision on the Supreme Court case of Price Waterhouse v. Hopkins; the Court ruled in favor of Ann Hopkins, who had been denied partnership in the firm of Price Waterhouse on highly gender-stereotyped grounds.

Specialists in the psychology of women have also made considerable advances in research methods. In the first phase beginning in the early 1970s, feminist psychologists formulated detailed critiques of gender bias in traditional research methods in psychology (e.g., Caplan & Caplan, 1994; Grady, 1981). These scholars pointed out that much standard methodology was biased, in terms of the questions that were asked (e.g., the question of whether women experience menstrual-cycle fluctuations in mood ignores the question of whether men experience cyclic mood fluctuations); the tests and other measurements that were used (e.g., are items on the SAT-Mathematics test gender biased?); the choice of sample (e.g., the prevalence of all-male samples); the tendency to publish significant findings only (implying that findings of gender differences are more likely to be published than findings of gender similarities); and interpretations (e.g., women's lower estimates of the grades that they will achieve on an exam are seen as evidence of women's lack of self-confidence rather than as men's unrealistic overconfidence). In the next phase, feminist psychologists formulated guidelines for nonsexist research (e.g., Denmark, Russo, Frieze, & Sechzer, 1988; McHugh, Koeske, & Frieze, 1986) and began to develop research methods better designed to answer questions about women's lives. Today, researchers in the psychology of women are challenging the ways in which quantitative methods and laboratory experimental research are accorded privileged status in psychology; they began to develop and import alternatives, including especially qualitative methods and naturalistic research (e.g., Crawford & Kimmel, 1999a, 1999b; Reinharz, 1992).

Consider: In 1965, "rape" was the word that could not be spoken, and the term "sexual harassment" did not even exist. Psychology of women researchers, teaming up with feminist researchers in other disciplines, such as sociology and law, have advanced knowledge about violence against women in ways that are breathtaking. Examples are Mary Koss's research with college students, which demonstrated that rape was far more prevalent than previously believed (Koss, Gidycz, & Wisniewski, 1987), and Malamuth, Sockloskie, Koss, and Tanaka's (1991) research, which identified factors predisposing men to sexual aggression. Another example is Louise Fitzgerald's research on male professors' sexual harassment of women students (e.g., Fitzgerald, Weitzman, Gold, & Ormerod, 1988). For an extended discussion of psychologists' research on violence against women, see the volume by Koss et al. (1994). Findings that exposed sexual harassment of female faculty and students, as well as pervasive problems of acquaintance rape and dating violence among college students, have particular implications for women in academe.

Advances in the broad field of psychology. In a special issue (O'Connell and Russo, 1991), *Psychology of Women Quarterly* documented the broad impact of women researchers and feminist research on psychology in general, including articles on feminist contributions in areas such as counseling psychology, social psychology, developmental psychology, and health psychology. Morawski and Agronick (1991), for example, reviewed the legacy of feminist work in experimental and cognitive psychology. In a bit of historical serendipity, the first period of formalized experimental psychology, 1890-1920, coincided with the first wave of the women's movement. Not surprisingly, feminists made their mark on the field early. Helen Thompson Woolley and Leta Stetter Hollingworth are good examples. Woolley conducted experimental research on human psychological gender differences (Morawski & Agronick, 1991). Hollingworth's research included fluctuations in women's work efficiency caused by their menstrual cycle (she found no fluctuations).

After women won the right to vote in 1920, the feminist movement became unfocused as women believed they had attained the means to ensure social and political equality. Despite that belief, larger social forces continued to foster gender segregation in the field, and women psychologists had limited opportunities for research in fields other than child development. The 1950s did nothing to promote women's contributions in psychology. Beginning around 1965, the cognitive revolution took over experimental psychology, replacing a behaviorist approach with a science of internal mental events. The second wave of the feminist movement began around the same time, bringing with it sharp critiques of traditional psychological science. One target of criticism was laboratory experimentalism that, feminist methodologists argued, strips behavior of context, thereby misidentifying crucial influences on behavior. Some of these contextual influences include social relations, particularly power hierarchies between men and women.

Jacklin and McBride-Chang (1991) examined the influence of feminist psychology on the field of developmental psychology. They concluded that effects have occurred in three areas. First, feminist scholars have broken down the male-as-normative or androcentric tradition of theory and research in developmental psychology. A number of feminist scholars—the best-known example being Gilligan (1982)—have documented the extent to which theory has been based on male development and supported by research on all-male samples.

Second, feminist scholarship has reduced the rampant mother-blaming often found in developmental psychology. Beginning with the era of Watson and behaviorism, the human infant was viewed as a highly conditionable blank slate, on which mothers could etch strong marks. Mothers were blamed for schizophrenia, autism, and homosexuality in their offspring. Mothers' employment was thought to have deleterious effects on children. Beginning in the 1970s with leadership by women researchers, these views changed. Carefully conducted studies showed that mothers' employment was not harmful to children. The range of potential influences on children was broadened beyond mothers to include fathers, peers, the schools, and the media.

Third, feminist scholarship has changed views of gender-role socialization. The traditional goal of research and theory on this topic had been to determine how socialization worked successfully, turning girls into sweet young things and boys into tough football players. Feminist scholars turned these approaches around, questioning why gender is such a primary category for socialization. Traditional theories of gender-role socialization that pointed to inferior outcomes for girls (e.g., psychoanalytic theory) were replaced with theories that posited equal development and recognized gender as a primary cognitive category (e.g., gender schema theory, Bem, 1981).

In addition, feminist scholarship places enhanced value on research in the service of social activism (Madden & Russo, 1997). Although promoting human welfare has been incorporated into the "mission statement" of the field since its beginnings, feminist psychologists have extended that principle of fostering psychology in the public interest to include promoting equity and fairness for women. In order to protect, recognize, and reward such research, feminist psychologists have created new organizations and structures in psychology, such as the Association for Women in Psychology (Tiefer, 1991), the Division on the Psychology of Women (Division 35) of the American Psychological Association (APA) (Russo & duMont, 1997), and the APA Committee on Women in Psychology (Hogan & Sexton, 1991). The recognition, support, and publication outlets provided by these groups have been of particular benefit to academic women psychologists who seek to do research in the public interest in general and on gender and the psychology of women in particular.

Obstacles for women as researchers

In September 1998, *The Chronicle of Higher Education* featured a cover story entitled "The Gender Gap in Scholarly Publishing: Why Women Are Less Prolific Than Men," complete with a photograph of two stacks of papers, one 16.5 cm high and the other 2.5 cm high. The featured table in the article listed the 10 most-cited authors in two fields: economics and higher education. In both cases, the list was all male. The table made no mention of the fact that fewer than 10% of PhDs in economics go to women so that at most only 1 of the 10 names would be expected to be female. In higher education, women earn a far more substantial chunk of the PhDs, but, even in that field, women are relatively recent arrivals. A list of the 10 most-cited authors taps almost certainly only those who received their PhD several decades ago, yet that point was not made clear in the *Chronicle* article.

This case illustrates the ease with which the scholarly community is willing to uncritically accept and publish evidence of women's alleged research deficiency. At the same time, it illustrates the complexities involved in collecting appropriate data on gender and research productivity. Here we consider the obstacles to scientific productivity that women have faced and continue to face.

Gender bias in acceptance of articles for publication. Several decades worth of research has investigated the possibility that discrimination occurs in the evaluation of women's research. A classic study demonstrated that even when the work of a woman is identical to that of a man, it is judged to be inferior. Goldberg (1968) presented scholarly essays in a number of academic fields to female college students to evaluate. All of the students rated the same essays, but half of them rated essays bearing the names of male authors (e.g., John T. McKay), whereas the other half rated the same essays with the names of female authors (e.g., Joan T. McKay). The results indicated that the essays were rated higher when the author was male.

Swim, Borgida, Maruyama, and Meyers (1989) conducted a meta-analysis of studies of this type, noting that the outcomes of these studies are sometimes inconsistent. Over all studies, the size of the Joan-John effect (i.e., the magnitude of the gender bias) was $d = -.07$, the negative sign indicating a lower evaluation of female-authored work. The effect was tiny. Consistent with this small effect size, 73% of studies found no significant effect for the Joan-John manipulation, 20% found that John's work was rated higher, and 7% found that Joan's work was rated higher. Effect sizes varied as a function of various features of the studies. For example, when Joan and John's work was high in quality, the effect size was close to zero (-.02); the effect was larger when Joan and John's work was medium in quality (-.24). Applied to the concerns in this report, these results seem to indicate that evaluation of absolutely outstanding articles will not be biased, but articles of ambiguous merit may be judged based on the author's gender. Because of the potential for bias, APA has mandated that editors of APA journals offer masked review as an option; however, mandatory masked review of articles should be instituted as policy.

Inequity in allocation of university resources. One major factor that may have substantial long-term effects on a faculty member's research career is the research resources given by the university at the time of hire, commonly known as the "start-up package." These packages may supply research equipment, summer salary, course release, or support for graduate student assistants. All of these elements are crucial in launching a program of research that will make substantial contributions; they also may be related to the salary differentials evident between men and women discussed earlier.

The lore among women faculty is that men get larger start-up packages in part because they demand more. Women are more modest in their expectations and may have less mentoring about what they should request. As a result, the university invests less in their research at the crucial initial stage. We know of no research that has examined this question systematically. Because start-up packages are a potential source of gender inequity, however, universities should monitor them closely. Because some kinds of research require specialized space and equipment and are costlier than others, assessing inequities in start-up support should go beyond monitoring of dollars and include an assessment of adequacy of the package as a whole for starting up a faculty member's research program. Anecdotes of women promised equipment and space, which were not delivered until the end of the academic year, suggest that monitoring delay in delivery of start-up resources is important as well.

Access to postdoctoral training. Unequal access to postdoctoral training is another potential source of bias against women psychological scientists. Postdoctoral training provides additional research skills as well as the additional publications that enhance chances of landing a job at a research university. On the other hand, postdoctoral training is sometimes undertaken as a holding pattern because no job is available. Thus, postdoctoral data are difficult to interpret. We need to know more about the role that the postdoctoral experience plays in the career development of women and men. Table 20 presents data on postdoctoral choices for 1997 recipients of PhDs in psychology. There was little gender difference in their reasons for not choosing postdoctoral training. Further, 20% of men and 22% of women said that no suitable postdoctoral position was available, which suggests there is little bias in awarding postdocs to women. Nonetheless, given that research on postdocs in medicine showed gender bias in the review of postdoctoral applications (Wenneras & Wold, 1997), a more in-depth look at the experience of women seeking postdoctoral training seems warranted.

Table 20
Reasons Why Postdoctoral Training Not Chosen, as a Function of Gender, for 1995 Doctorate Recipients in Psychology

Reason	% Men (*n* = 237)	% Women (*n* = 434)
No suitable postdoc available	20.3	22.1
Little or no benefit to career	32.9	31.3
More promising jobs available	36.7	42.2
Stipends too low	35.4	33.9
Other reasons	10.5	18.3

Source: 1995 Doctorate Employment Survey *by the American Psychological Association, Research Office, 1995, Washington, DC.*

Note. Percentages do not total to 100 because respondents could indicate more than one reason.

Travel. Extensive travel to conferences, nationally and internationally, is crucial to building a research reputation, which in turn is essential in obtaining substantial research funding. Moreover, travel is important for building collaborations with other scientists, nationally and internationally. Insofar as women are more restricted in their ability to travel because of family responsibilities or lack of funding, travel is a continuing obstacle to women's success as researchers.

Negative reactions to persons and research labeled "feminist." Research demonstrates that people hold negative attitudes toward feminists. Men who are high on authoritarianism hold particularly negative attitudes, but even men who are low on authoritarianism display negative attitudes (Haddock & Zanna, 1994). In studies that break down global attitudes into dimensions, attitudes toward feminists are generally characterized by cross-dimension ambivalence—that is, feminists are admired and are generally rated high on qualities such as competence, but they are not liked (e.g., MacDonald & Zanna, 1998). Most of these studies investigated the attitudes of undergraduates, leaving unanswered the question of the attitudes of university faculty.

Assuming that the same phenomena occurred among psychological scientists, what might the implications be? It is reassuring that feminists are viewed as competent and are admired. There is cause for concern, though, that feminists are viewed as less likeable. Despite claims that decision-making on issues such as tenure is based on objective evaluations of the individual's work, friendships and likability probably color the results. MacDonald and Zanna's (1998) results indicate that the label "feminist" may affect hiring decisions, although the participants, again, were undergraduates. We know of no similar research designed to examine the influence of the label "feminist" applied to research.

Service and Leadership

Women make a wide variety of service contributions to their academic institutions, to their communities, and to their disciplines in a variety of roles, including committee member, administrator, editor or reviewer for journals, and participant in their professional associations. In this section, however, we primarily focus on service in academic governance and administrative roles in academic institutions.

Governance roles

Benefits of participation in governance. Participation in academic governance, which includes the academic senate, commissions on women and other similar groups, or university committees and task forces, can provide an insider view of academic politics and an opportunity for leadership and leadership development. But there is a status hierarchy of university governance. That is, different kinds of service bring different kinds of "credits," particularly for university committees. For example, service on university committees such as personnel, budget, and research award committees can provide invaluable, career-enhancing knowledge, experience, and visibility for leadership skills in even the most highly research-focused research careers. These are also the committees that provide experiences most relevant to the career ladder in academic administration that ascends to a college presidency. For individuals who are interested in academic administration on the "student side" of the house, experience on student-oriented committees can be relevant and helpful.

Obstacles for women in governance roles. While committee experience may be helpful and is required by most universities, too much or the "wrong" type of service may be an obstacle, depending on one's career aspirations. The Carnegie Foundation found in 1990 that female faculty were more active in daily campus governance than men (Carnegie Foundation for the Advancement of Teaching, 1990). They were also more likely to be involved and offer expertise in extrainstitutional projects (U.S. Dept. of Education, 1991). Women tend to put more time into service because they believe community service is as important as research and that such contributions will be valued (Park, 1996). The governance and other service activities that women choose are more likely to be based in helping others than in attaining power (Twale & Shannon, 1996). Women feel they have a responsibility to other women inside and outside the academy and choose to serve on committees that aid in this goal (Park, 1996). Female faculty also mentor junior faculty, give free presentations to the public, and volunteer for community projects. These activities, however, though time-consuming do not typically enhance one's credentials for academic administrative leadership roles.

Women faculty, and especially those of color, are typically asked to bear an extra burden of committee work at all levels of the university. Park (1996) suggests this occurs because women and minority faculty members are more sought after for their varied interests: Students seek them as role models, they are viewed as more caring, and the university needs diversity on its committees. Well-intentioned faculty colleagues, who want to ensure that women and ethnic minorities are represented on committees, may deluge women faculty with requests for committee service. As discussed earlier, stereotypes may make it easier to ask women to serve on committees but make it difficult for women to say "no" to extensive committee service without appearing uncooperative or uncaring.

Extensive committee service is detrimental. Every minute spent in committee work is a minute that cannot be spent on scholarship. Data on this point are shown in Table 21 (see p. 37). Notice that, in every ethnic group, men allocate a higher percentage of their time to research than do women. These data, unfortunately, are aggregated across all types of postsecondary institutions, making it unclear whether these patterns would be true within a given university or whether they are a result of the underrepresentation of full-time women faculty at research universities, which we noted earlier. Moreover, the data are aggregated across all disciplines; women are more represented in the humanities and men in the physical sciences. Nonetheless, the aggregated patterns are clear: Women spend more time than men on teaching and service; men spend more time than women on research.

Table 21
Percentage of Faculty Time Allocated for Professional Tasks, as a Function of Gender and Ethnicity

	American Indian		Asian American		African American		Hispanic American		White	
	M	W	M	W	M	W	M	W	M	W
Research	8	5	33	23	12	8	21	13	21	12
Teaching	59	57	40	41	46	53	47	57	45	53
Professional Growth	4	6	4	4	6	5	6	5	5	7
Administration	12	6	8	10	13	14	8	8	13	11
Consulting	10	16	4	10	3	5	7	3	7	5
Service	7	11	10	11	19	11	10	13	10	12

Note. M = men; W = women.

Administrative roles

Benefits of participation in administrative leadership positions. Many faculty serve at least a term or two as chair of their department. Although the nature of this position varies widely, from the more faculty-oriented status in a rotating chair system to the greater administrative and power emphasis of a department head, most chairs feel committed to retaining both roles—of faculty member and administrator—even if that sometimes requires a difficult balancing act. For those who occupy full-time academic administrative positions outside a department, for example, as a dean, provost, or president, their administrative responsibilities clearly have first priority, though many continue some level of involvement in their academic discipline.

We focus here on academic administrators at the rank of chair and above on the academic ladder (i.e., chair, dean, academic vice provost, provost, and president/chancellor). We have chosen not to discuss the roles of student affairs or other "nonacademic" administrators (e.g., financial aid and administrative services) as the impact of such positions varies depending on the academic administration's culture and power structure. Further, although they may lead to higher levels of administration within their particular areas (e.g., an associate dean for student affairs may lead to a vice presidency for student affairs), they rarely lead to advancement on the "academic side" of the institution.

As leaders in higher education, administrators play a strategic role in setting institutional and departmental goals, making long-term budget and curricular decisions, recruiting students, promoting and retaining current faculty, and hiring a new generation of faculty—decisions that determine the quality of life for women faculty. Administrators are also highly visible, and thus serve as role models as well as mentors to students and younger faculty and administrators. However, the number of female administrators in academic institutions falls well below those numbers needed to provide leadership as mentors and role models.

In 1995, only 25% of the chief academic officers at U.S. colleges and universities were women (Ross & Green, 1998). Even more dismal is the female representation in the top leadership position. Only 16.5% (379 out of 2,295) of the chief executive officers/presidents of U.S. colleges and universities in 1995 were women. Most were employed at bachelor or associate degree granting public institutions. Few (5.8%) held presidencies at doctoral granting institutions. Of these 379 women female presidents, only 12.4% were women of color (32 African Americans, 9 Hispanics, 4 Asian Americans, and 2 Native Americans).

The number of women psychologists holding administrative posts is better than those just presented on presidents and chief academic officers. In 1999, among the 245 deans who were APA members, 35% were women (APA Research Office, 1999). In 1998-1999 just under 21% of chairs in doctoral-level psychology programs were women. In master's level programs, women were 29% of chairs. Representation was noticeable and substantially higher in private than in public institutions, with 40% of master's departments in such institutions chaired by women (Wicherski et al., 1999). Thus, women psychologists are beginning to gain the experience needed to move up the academic administrative ladder. The issues and barriers women face change as women move up into administrative arenas that have been traditionally dominated by men from the physical and biological sciences, however.

Access to administrative leadership positions. For the majority of academic administrative leadership positions, criteria usually include at least tenure and rank at the associate or full professor level. Medicine calls this the "traditional gold standard" (Association of American Medical Colleges [AAMC], 1996, p. 805). However, as the AAMC itself notes, in the increasingly complex environment of higher education, this gold standard no longer assures effective leadership (AAMC, 1996). In fact, in 1995 only 39% of newly appointed presidents held tenure as faculty members. Overall, they served an average of 8.5 years as full-time faculty, although 25.5% had served less than a year on the faculty at a college or university (ACE, 1995).

Demonstrated administrative and leadership skills are now more widely sought for higher education administrators. These skills can be acquired and demonstrated through involvement in campus service or professional organizations, but as mentioned above, service participation is always a difficult decision for untenured faculty. Service can assume Sisyphean aspects, and time given to service activities cannot be given to teaching and research. Untenured faculty who take on additional service/leadership roles in anticipation of developing an administrative portfolio may risk denial of tenure. Even with tenure, an associate professor who assumes an administrative position and is unable to maintain a productive research record may never be promoted to a higher rank (e.g., full professor; distinguished professor).

However, obtaining service experience is not necessarily a prerequisite for administrative positions, particularly for males. Although males represent the large majority of academic administrators, men actually dedicate less time to service (Park, 1996). Because men are perceived as "natural" leaders, men may not have to prove their leadership skills as much as women. Indeed, insofar as gender stereotypes shape women's service opportunities into student-oriented, "housekeeping" roles, women may be more likely to become channeled into "helping" positions such as in the areas of student affairs or affirmative action. While these are excellent administrative positions, they are usually not integral contributors to the academic direction of an institution and are not considered positions of line authority.

Thus, one's specific administrative aspirations may be congruent or incongruent with gender stereotypes depending on the specific administrative role. Traditionally, personnel and budget decisions have been viewed as requiring someone who is "tough" and who can make the "hard decisions." The collaborative models that are replacing this view may work to women's benefit. Women's leadership style is often viewed as based on cooperation and other-oriented motivation. This less aggressive style may foster "collaboration and encourage others to participate" (Hall & Sandler, 1982). Indeed, Ahmed (1991) demonstrated the difference between female and male academic deans in their perception of departmental priorities and personal style. She found women chairs expressed more concern for people while men expressed more concern about the department. Women were also more dissatisfied with their role as chair because they made more compromises in accepting their work roles, while men were comfortable following the traditional institutional definition of the chair role.

Obstacles for women in administrative roles. As described previously, women experience stereotyping and discrimination that may make it difficult for them to achieve acceptance as leaders. In particular, leadership is stereotypically viewed as the province of males and incompatible with women's traditional roles as nurturer, mother, and subordinate (Eagly et al., 1995; Powney, 1997). Gender stereotypes may differ for women depending on their race and ethnicity, however (Niemann, Jennings, Rozelle, Baxter, & Sullivan, 1994). Although White women may be stereotyped as self-deprecating and deferential, African American women may be stereotyped as aggressive and hostile and therefore more of a threat to the White male leadership structure. Asian, Native American, and Hispanic women, on the other hand, may be stereotyped as more deferent and passive than White women and thus less likely to be considered for leadership positions (Chow, 1987; Fouad, 1995; Leong & Serafica, 1995).

In light of such stereotypes and misperceptions, how do women become and exist as credible leaders? How do we "change the structure without risking rejection by the structure?" (Sandler, 1992, p. 9). Some suggest that successful female academic administrators accept the reality that men are in control at present and learn how to work within the male-dominated system (Witmer, 1995). While this may at first be seen as a sell-out position, this does not mean the system will not eventually change or that women must buy into it completely. There is still room for individualism and the egalitarian leadership style that is more associated with women. In the meantime, however, it is important for women and men to connect and work with each other (Levy, 1982). As Sandler (1992) points out, men are a source of critical information, support, and advice. In particular, women must pinpoint the power brokers inside and outside the department and ascertain the informal rules from them.

Traditional White male leadership styles are now being questioned. New visions of leadership, some imported from more collectivistic Asian cultures, emphasize the importance of qualities stereotypically associated with women. In particular, service-oriented institutions are viewed as needing "leaders able to inspire commitment to service, to build successful teams and to facilitate systemic change. Many current department heads, however, are less skilled in these areas than they are at commanding authority—though it is increasingly understood that the tough-talking, control-oriented executive is less likely to contribute lasting improvements than one committed to understanding and motivating people" (AAMC, 1996, p. 806).

Academic leaders must also be skilled at consensus building and motivating others to commitment to service. Arana and McCrudy (1995) suggest that academic leaders be chosen, trained, and evaluated based on administrative and management skills as well as professional stature.

Academic climate. While women may be better prepared to lead in the new leadership, sexism is still a deterrent. One of the biggest deterrents to women's success in an academic institution is the academic institution's "chilly climate" (Caplan, 1993; Hall & Sandler, 1982; Park, 1996). The processes of stereotyping and sexism discussed previously become expressed in the academic context in a variety of ways that, taken together, result in an institutional climate that can have chilling effects on women's aspirations, performance, and feelings about themselves. Sandler (1992) believes that a chilly climate occurs when men are uncomfortable or threatened by women's achievements. In turn, men's informal behaviors communicate their discomfort, making women uncomfortable as a result.

Thus, although such behaviors are not necessarily overt, women "know" this lack of acceptance exists, and may not feel accepted and powerful due to slights such as men's ignoring women's comments or interrupting them in meetings. Such slights, intended and unintended, are common and contribute to a larger pattern of discriminatory behavior that reinforces outdated gender stereotypes (AAMC, 1996).

Women of color may experience even more intense covert and overt discrimination. For example, they have a low probability of obtaining leadership and administrative positions (Dumas, 1980) and may apply for numerous jobs before getting an interview and subsequent jobs (Powney, 1997). Rusher (1996) interviewed 154 female African American administrators (academic and nonacademic), 98 of whom were deans and above. Many stayed at the same level over a long period of time. These women reported having supervisors who were not helpful or encouraging of their advancement. Similarly, Mosley (cited by Rusher, 1996), who conducted one of the first studies on African American women college administrators, found most were in staff positions, did not have mentors, and did not feel their career advancement was promising.

Macias (1994) surveyed 53 Hispanic women deans and assistant deans (academic and nonacademic) nationwide who expressed similar concerns of no support and lack of upward mobility. Gorena (1994) surveyed 68 Hispanic women deans, vice presidents, chancellors, provosts, and presidents to identify factors that influenced or deterred their leadership advancement. Participants felt economic status and recognition by non-Hispanic administrators influenced advancement positively. Factors that hindered advancement were traditional Hispanic cultural values (e.g., women's roles, family issues), discrimination, and assignments to minority-related work.

Stress. Being one of the few female and/or ethnic minority administrators can take a physical and emotional toll. Stress and burnout are prevalent from individuals' being everything to everybody, such as being assigned to numerous committees where they are expected to represent all women/all minorities. Stress is compounded if the power is superficial when the appointment is a token political strategy rather than a genuine institutional commitment (Powney, 1997).

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Stress also results from overvisibility. Women, especially ethnic women, are tired of being the "different" or the only female administrator in a field that is predominantly White, male, and middle class (Powney, 1997). Although this increased visibility can have advantages, at times increasing the chances that one's work is recognized, the work of ethnic women may be more closely scrutinized than others' (Murrell & Tangri, 1999). This increased scrutiny can also limit ethnic women's ability to mentor others and may lead many to hide their abilities or choose to forgo the administrative route completely. For those who choose to stay in administration, the combination of family obligations, other personal priorities, and administrative life is a recipe for burnout; many women administrators may forgo marriage and/or children or put a healthy relationship at risk.

Isolation. Administrative women may also lack support systems at work. They may be isolated from colleagues because many faculty do not trust or respect academic administrators (Bone, 1997; Fairweather, 1996; Walton, 1997). Faculty may not respect administrators because they believe "academic administration is not a career, and the academicians regard a professorship as the ultimate goal" (Walton, 1997, p. 82). In addition, administrators are commonly viewed similarly to elected officials or morticians—they are necessary and important but they do a dirty job. Someone has got to do it, but others may not wish to associate with them.

Some female colleagues believe that women who have "made it" as an administrator must have "sold out" or betrayed other women (Walton, 1997). Because women are not perceived as leaders/managers, a woman who has "made it" may receive inappropriate attributions from her co-workers and subordinates as to how she obtained the position (i.e., affirmative action hire or inappropriate sexual favors). Many administrators are also taught that a manager must distance herself from subordinate staff. This means women must leave behind their support group of female faculty and staff and seek support from White males who may not be accepting (Powney, 1997).

Women may also fear developing social relationships with other female administrators because it may be viewed by others as using social relationships politically. These relationships may compromise their integrity and put them in inappropriate competition with other women, forcing them to conform to a masculine model for succeeding in an environment that rewards the "win-lose" philosophy (Park, 1996). Many female administrators feel it is important to maintain their integrity and honesty (Macias, 1994) and fear the traditional higher education administrative models will compromise this.

Maintaining one's self-esteem and self-worth may also be difficult when support systems are lacking, traditional masculine models are still prevalent, and the climate is chilly (Yoder, 1985). Women may begin to wonder whether their not being qualified is the reason for not moving up the administrative ladder rather than discrimination (APA CWP & CEMRRAT, 1998). This type of insidious discrimination "can challenge (a person's) own identity and threaten their inner security" (Rusher, 1996, p. 3).

VI. Women's Careers in Context

Historically, academe has been an inhospitable place for women. Indeed, one of the reasons psychology can be found in so many diverse employment settings is because women who earned their psychology doctorates found the halls of academe closed to them (Russo & O'Connell, 1980). Psychology emerged at a time of great social and economic change. Women's participation in psychology reflects a myriad of interwoven social and economic factors that have shaped American culture over the past century, including the expansion of higher education, women's suffrage, the rise of professionalism, the progressive education and child welfare movements, two world wars and their social and economic aftermath, and the civil rights and women's movements (Russo, 1983, 1988). Appendix A delineates the history of women's roles as faculty of psychology.

Today, women are more active participants in the academy. Further, they have a new consciousness about the impact of stereotyping and discrimination and understand the need to join with like-minded men and women to foster gender equity in academe. The aim is not simply to help women succeed in obsolete patriarchal institutions. We have gone beyond simply trying to level the male-designed playing field. Institutional values, priorities, and practices are being challenged. This is occurring at a time when academe is undergoing scrutiny from a variety of sources, for example, as public universities explore new relationships with their communities, and traditional academic procedures, including tenure, are under scrutiny.

Yet, discussions about the definition of scholarship (e.g., Boyer, 1990; Halpern et al., 1998) may lead to important changes that will benefit women and ethnic minorities in the academy. Moving beyond the traditional definition—that only original research constitutes scholarship—to a more inclusive definition that includes the scholarship of integration, application, and pedagogy, will benefit all academicians whose work is currently marginalized by traditional standards. It is too early to evaluate the impact of these changes on women faculty in general, let alone on women psychologists. However, it continues to be important that women psychologists take leadership roles in institutionalizing academic power bases for women's issues, including campus commissions on women, women's studies programs, faculty women's associations, and administrative positions devoted to equity issues. The health of these power bases is critical to the status of all women on campus, and such bodies play an active role in evaluating proposed changes in academic policies for their impact on women.

Institutions differ in their rates and responses to pressures for change, and the diversity in institutional climate for women across the country means that strategies for changing life in one's institution must be specifically tailored to that institution. Models for how to conduct salary equity studies have been effective, but they do not provide a full picture of the inequities women experience. The report of the Committee on Women Faculty in the School of Science of the Massachusetts Institute of Technology (MIT) demonstrates the effectiveness of a sophisticated equity study and reveals the importance of providing support over the course of a woman's career (see http://web.mit.edu/fnl/women/women.html). That study found that junior women faculty felt supported but concerned about the impact of family and work conflicts on their careers. In contrast, senior women faculty felt marginalized and excluded from significant roles in their department. The women's marginalization was associated with gender differences in compensation, space, awards, resources, and responses to outside offers. This pattern repeated with successive generations of faculty, with new generations perceiving the problems as "solved" and paying a high personal and professional cost in learning otherwise. In implementing the recommendations of the report, the collaboration of the science faculty and administration at MIT provides a model for others. There is a need to identify such models and to disseminate information on a wide variety of strategies for change that can be tailored to particular settings. Too many women who raise objections to unequal treatment are met with intense ostracism. Clearly, there are some places where women thrive in academe, and many women can point to clear evidence of success for women faculty in psychology. Such success provides a foundation and source of support for both redressing the imbalance in equity found across institutions and fostering institutional and cultural change reflective of the humanistic values and social concerns that women faculty believe are important.

VII. Recommendations To Enhance Women's Success in Academia

The issues are complex and the need is great. We stand at a time in history when women represent a significant proportion of faculty in psychology and where real institutional change in academic institutions has the potential to become reality. Good will is not sufficient to produce such change, however—proactive efforts are required.

To facilitate such efforts, we offer a package of recommendations aimed at maintaining progress and preventing and ameliorating inequities. The recommendations stem from the data reviewed here and presented in Tables 1-21, the literature reviewed on successes and obstacles for women in their academic roles, and the collective perspectives of the task force members as members of the academy representing varying institutions and academic positions (e.g., faculty, department chair, dean, vice president, and provost). The recommendations are extensive and should be addressed at multiple levels.

Few of our recommendations are intended for women as individuals, for it is our position that the institution must change, and those in positions of power must implement those changes. However, young academics must enter into academia with a clear understanding of the culture and the unwritten "rules." *Surviving and Thriving in Academia: A Guide for Women and Ethnic Minorities* (APA CWP & CEMRRAT, 1998), a publication of CWP and the Commission on Ethnic Minority Recruitment, Retention, and Training in Psychology (CEMRRAT), includes excellent suggestions on career planning and successful navigation of academia. The guide discusses options on types of academic institutions, evaluating these choices, the application and interview process, and, very importantly, negotiating for salary and additional benefits (research monies, graduate assistants, equipment, etc.). Finally, the guide discusses strategies for women and people of color for surviving and thriving emotionally in an often chilly or hostile climate. The strategies include support systems, mentors, stress reduction, reality testing, and legal rights.

The many recommendations that have been developed for increasing the participation of women in the sciences continue to apply to women of color in psychology (e.g., Davis, Ginorio, Hollenshead, Lazarus, Rayman, & Associates, 1996). APA's CEMRRAT has developed a comprehensive plan for addressing ethnic minority issues, that the Task Force on Women in Academe fully supports (APA CEMRRAT, 1997). Its final report and materials developed under its auspices can be found on the Web under Public Interest Directorate activities at http://www.apa.org/pi/oema/visions/contents.html. As we have already stated, while the guide is directed toward faculty, authors of the guide and this task force believe it is ultimately the responsibility of departments, institutions, and APA to ensure that women and people of color are treated equitably. Achieving equity will require change in the overall academic environment.

The first set of recommendations is organized into eight categories: climate, compensation, accountability, teaching, research, service, training, and ethnic minority issues. Most are directed toward departments and the institutions in which women faculty in psychology work. An additional set of recommendations is for APA, to gather information that will inform us about places in which women work, as well as to play a prominent national role in shaping policies that will ensure equity for women working in academe. We believe that implementing these recommendations will maximize the full use of the available human capital, thus benefiting not only women faculty, but their universities and the discipline as well.

Academic institutions must recognize that it is the academic culture that is the problem, not women themselves, and develop institutional policies and programs that promote equity and discourage stereotyping and discrimination. The overarching goal is to create an inclusive environment that is conducive to productivity and advancement for all faculty. To achieve this goal all parties must take a role in changing the academic institution; this includes men and women, faculty and administrators, students and alumni. Where possible, we have delineated the party or parties we believe most responsible for change.

The academy should work together for change in the following areas:

Enhancing the Academic Climate

Institutional leaders: Presidents and provosts

- Establish procedures to explicitly monitor the academic environment, including equity in participation, compensation, and resources, course assignments, and faculty perceptions of equity over their careers.
- Seek out women for leadership and administrative positions, particularly ones that affect personnel (including salary, tenure, promotion, and search committees), budget, and space decisions.
- Provide lines of communication between senior women faculty and administration.
- Develop strategies for mutual use of power rather than its hierarchical use.
- Provide effective ongoing education on gender equity and sexual harassment that ALL faculty are required to attend.
- Institute family friendly policies, including on-site child care and paid parental and family leave policies for child and elder care; these should include a minimum of 12 weeks of leave after childbirth.
- Institutionalize flexible-time, part-time, and job-sharing opportunities and establish mechanisms to facilitate switching from full- to part-time status and back again. These should be paralleled by reward and promotion structures.
- Develop mechanisms to enable people to combine academic careers and clinical practice.
- Proactively develop institutional structures to support dual career recruitment. This includes incentives for outside departments to hire partners and the establishment of networks among local colleges, universities, and businesses to maximize the opportunity for a partner placement.
- Support institutional power bases for faculty women, including strong faculty women's groups, committees on the status of women, and women's studies programs.

Academic leaders: Deans and chairs

- Recruit women and people of color to correct the imbalance in numbers of male and female faculty and faculty of color.

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- Ensure that women and people of color are well represented as colloquium speakers, visiting professors, and other types of appointments that contribute to the intellectual life of the department.
- Have departments develop clear and written tenure and promotion criteria that are distributed to all faculty and used as the standard by promotion and tenure committees at department, college, and university levels.
- Explore ways to extend or slow the tenure clock for women and men who need to reduce their load or take time off to meet family responsibilities.
- Provide written annual progress reports.
- Enhance the status of part-time faculty, ensuring they are compensated appropriately, are covered by health insurance, and have pension benefits. Mechanisms to facilitate transition from part-time to full-time status should be established.

Achieving Equity in Compensation

The goal in this area is to ensure that women are compensated appropriately and equitably for their many contributions to their institutions. Specific recommendations include:

Institutional leaders: Presidents and provosts

- Institutionalize regularly scheduled monitoring of salary equity and pay attention to equity in other forms of compensation (benefits, stipends, summer support, pensions, access to outside income) and resources affecting faculty success (e.g., space, equipment, travel funds, student support).
- Monitor gender discrepancies in initial and counter offer letters. The role of the outside offer in contributing to gender differences in salaries needs to be examined, and if inequities exist due to a differential willingness of males to play the "market game," these inequities should be promptly redressed.
- Procedures for awarding distinguished professorships and naming chairs should be examined for gender bias, including indirect bias against fields that have proportionately more women.

Ensuring Accountability

Administrators play a key role in ensuring that the ideals reflected in policies become translated into realities. Institutions must provide administrators with the resources and support they need to promote equity and hold them accountable if they fail to meet their responsibilities in this area.

Institutional leaders: Presidents and provosts

- Encourage leaders who appreciate and value individual differences and who recognize and will not tolerate racism and sexism.
- Offer incentives, such as equipment or support staff salaries, to departments now hiring and promote women and ethnic minorities at levels equal to or better than those represented in the employment pool.
- Immediately replace administrators who practice or permit discriminatory practices.

Enhancing the Environment for Women as Teachers

Academic leaders: Deans and chairs

- Provide new faculty with a reduced teaching load their first year and/or the year before tenure so they can meet research requirements for achieving tenure.
- Keep the number of different preparations required per semester at a minimum and, as much as possible, assign faculty to teach similar courses across terms or years.
- Equalize course assignments so that women and men in the same stages of their careers have similar teaching responsibilities.
- Provide new faculty with a teaching mentor who can answer questions about the mechanics of teaching and about the role of teaching in one's home institution. Insofar as possible, ensure that the mentor understands issues related to gender and ethnic bias in the classroom. Instructing new women or minority faculty to behave in the same way as senior White men will not be effective.
- Ensure that advising responsibilities are equalized across faculty so that women do not carry an undue burden.
- Assign good student teaching assistants to faculty, as often as possible.
- Provide travel money to attend teaching workshops and conferences (in addition to money for research-related conferences).
- Develop a multimethod approach to teaching evaluation that has clearly stated written objectives and includes a combination of peer and student ratings. Provide training materials for peer evaluators that educate them about pedagogical techniques as well as the potential for bias in the process.

- If a faculty member has a joint appointment, make it clear how she or he will be evaluated in both settings and which setting, if any, will be given greater weight.
- Encourage women faculty to keep good records related to their teaching. They should understand which information is required for personnel decisions and which can be gathered solely for teaching improvement purposes.
- Give credit for "out of the classroom" teaching, such as advising, independent research projects, and theses.
- Consider publishing in teaching-related journals as a way to indicate teaching acumen.
- Collect data to examine possible systematic gender biases in teaching evaluations that might be present on campus and in the department. In doing so, consider moderators of gender bias, such as gender of the student and discipline, rather than merely main effects analyses.
- Promote the development of distance learning, alternative delivery methods, and other activities that encourage flexibility of schedules.
- Support innovative teaching methods, including active and cooperative learning approaches.
- Support the development of courses and teaching experiences related to the psychology of women and gender as well as other issues of diversity.

Enhancing the Environment for Women as Researchers

Academic leaders: Deans and chairs

- Provide new faculty with a start-up package that will allow them to pursue an excellent program of research in their area. Be aware that some women are hesitant to ask for needed items that may seem to them excessive. Clarify that it is acceptable to ask for everything that is required for them to be productive.
- Allocate adequate space for research to new women faculty. Inequitable allocation of space, often a consequence of the overacquisition of space by senior faculty, can seriously impair junior researchers' careers.
- Encourage new faculty to submit a grant proposal within the first year or two, particularly if federally funded research is the norm in your department.
- Designate a research mentor for junior faculty. Ideally, the mentor should be a senior member of the department, whose research is in roughly the same area, who enjoys mentoring. If such a person cannot be found in your department, is there an appropriate person in a closely related department?
- Develop mechanisms to enable faculty to spend a summer, semester, or year in another institution that can provide facilities and support for their research.
- Be aware of possible evaluation bias when a woman labels herself or her research as "feminist," "ethnic," or "lesbian." Broaden definitions of scholarship to include nontraditional methodologies and perspectives. Recognize the importance of the scholarship of integration, application, and pedagogy.
- Nominate women for awards recognizing outstanding scholarship.
- In evaluating faculty based on their national and international reputation, recognize that some highly productive women doing high quality work have had limited opportunities to develop such reputations because of limitations on their ability to travel due to the lack of access to child care and the need to meet family responsibilities.

Enhancing Women's Service and Leadership Roles

Academic leaders: Deans and chairs

- Develop methods to evaluate service contributions and to recognize them in annual merit, promotion, and tenure decisions.
- Protect assistant professors from excessive committee work, so that they have the time necessary to develop a research program.
- Provide release time, research assistants, or summer stipends for individuals who take on substantial service burdens so that they will be able to maintain their research programs.
- Recognize substantial editorial contributions (e.g., editing a major research journal) as contributions to research knowledge.
- Increase the number of women in the administrative pipeline through networking, shadowing, experience, politics, friendships, women's leadership training, and faculty recommendations.
- Provide mentors and affiliations with power brokers for new women administrators.

Developing and Disseminating Training Materials

Academic institutions and professional and educational organizations must work together to fund, develop, and disseminate training materials that can equip administrators and faculty to foster equity in their institutions. Many of these materials already exist, and it is a question of making them more accessible. In other cases, new materials are needed, and we focus here on those that APA should take a leadership role in developing.

- Many chairs may be of good will, but they do not recognize gender discrimination when it happens and do not know how to intervene when they do recognize it. Develop materials and offer workshops for department chairs on how to identify and correctly label sexism when it occurs in a department and how to intervene successfully to eliminate it.
- Publish an *American Psychologist* article that can be used to train department chairs in addition to women faculty and students to be able to understand and recognize modern forms of racism and sexism.
- Establish a training institute for chairs and deans of psychology programs that addresses training in issues of equity, women faculty, and people of color.
- At annual and regional meetings, offer workshops for women faculty and administrators on how to use the power of their positions effectively.
- Develop training materials for peer evaluators of teaching and distribute them to all department chairs.
- Ensure dissemination of information about the history of women faculty in psychology. As long as each new generation of women perceives the problems as "solved" and therefore does not address them, the problems will continue (see Appendix A).
- Package and disseminate the gender relevant sections of APA's *Ethical Principles of Psychologists* and *Publication Manual*, for example, those dealing with sex discrimination, sexual harassment, publication credit, and so forth, so that they can be used to establish expectations and create equitable norms in local institutions.
- Continue to publicize and disseminate materials developed by APA's Commission on Ethnic Minority Recruitment, Retention, and Training in Psychology.

Ethnic Minority Issues

Ethnic minority issues cross cut all of the above task force areas of concern. Underrepresentation of ethnic minorities in psychology continues to be a severe problem, and unless ethnic minority issues are addressed, full participation of women psychologists in academe cannot be achieved.

- Curricula that are sensitive to issues of both gender and ethnic diversity should be developed and disseminated.
- To encourage more ethnic minority faculty and graduate students to visit elementary and high schools, academic institutions should allocate "credit" for such activities.
- Summer science programs and career days that include psychology and highlight ethnic minority models in a culturally sensitive way should be developed and disseminated.
- Funding should be targeted for talented ethnic minorities and low income students to ensure they have the financial resources needed to pursue higher education.

VIII. Additional Recommendations for APA and the Field of Psychology

APA has a host of boards, committees, and task forces with missions that relate to some aspect of academic life. We recommend that this report be distributed to relevant units of the APA governance structure, with the request that they identify and undertake activities to address the issues and concerns raised here. We believe that the people involved in the governance groups have a wealth of expertise and ideas to bring to the issues and want to enlist them in efforts to address the concerns documented in this report. In addition we have some specific recommendations with regard to data gathering, accreditation issues, and advocacy that APA is uniquely qualified to address.

- Collect information on numbers of part-time as well as full-time faculty, with master's as well as doctorate degrees.
- To develop a complete picture of faculty income, collect data on compensation from all sources inside and outside their academic institutions, not just salary.
- Explore the experience of women seeking postdocs in more depth.
- Encourage the National Center on Educational Statistics to identify disciplines in their public data sets and to separate psychology from other social science disciplines.
- Conduct more studies of minority women faculty and administrators.
- Implement a policy of mandatory masked review for all APA peer-reviewed publications.

- Conduct more research on the employment patterns of psychologists—that is, how they combine different jobs and functions, for example, teaching and clinical practice, jobs from two institutions, research and consulting, and so forth.
- Develop more knowledge on what is happening with regard to gender and tenure decisions for recent and current assistant professors.
- Encourage the Committee on Accreditation to strengthen the evaluation of Domain D of the *Guidelines and Principles of Accreditation of Programs in Psychology* and establish a minimum level of evidence of commitment to diversity that must be met by programs in psychology.
- Broaden the data gathering in the accreditation process to include a wider definition of equity and examine the site visit process to see how it may be used to detect and address more subtle equity issues.
- Urge public and private funding agencies to develop programs that award women research assistantships and summer research fellowships.
- Support power bases for women and minorities in funding agencies such as the National Science Foundation, the National Institutes of Health, and the National Institute of Education.
- Work with education groups such as the American Council on Education and the Association of American Colleges and Universities to promote equity in higher education generally and to ensure that special issues for women psychologists in academe (e.g., "credit" for heading a department's clinic or child study center) are incorporated in their policy recommendations.

References

Ahmed, S. (1991). *In search of the "different voice" in the organization: Men's and women's construction of their work-roles.* Unpublished doctoral dissertation, Virginia Polytechnic Institute and State University.

American Psychological Association. (1992). Ethical principles of psychologists and code of conduct. *American Psychologist, 47,* 1597-1611.

American Psychological Association. (1994). *Publication manual of the American Psychological Association* (4th ed.). Washington, DC: Author.

American Psychological Association Board of Educational Affairs Task Force on Diversity Issues. (1998). *Expanding the psychology curriculum: An annotated bibliography.* Washington, DC: Author.

American Psychological Association Commission on Ethnic Minority Recruitment, Retention, and Training in Psychology. (1997). *Visions & transformations...the final report.* Washington, DC: Author.

American Psychological Association Committee on Women in Psychology and Commission on Ethnic Minority Recruitment, Retention, and Training in Psychology. (1998). *Surviving and thriving in academia: A guide for women and ethnic minorities.* Washington, DC: Author.

American Psychological Association Research Office. (1998). *Special analysis of the 1997-98 Faculty Salary Survey.* Washington, DC: Author.

American Psychological Association Research Office. (1999). *1997 APA directory survey.* Washington, DC: Author.

American Psychological Association Task Force on the Changing Gender Composition of Psychology. (1995, October). *Report of the Task Force on the Changing Gender Composition of Psychology.* Washington, DC: Author.

American Psychological Association Task Force on Women in Academe. (1999). [Special analyses conducted on the 1993 National Center on Educational Statistics survey of postsecondary faculty].

American Psychological Association Women's Programs Office. (1996). *Women in the American Psychological Association.* Washington, DC: Author.

American Psychological Association Women's Programs Office. (1999). *Women in the American Psychological Association.* Washington, DC: Author.

Arana, G., & McCrudy, L. (1995). Realigning the values of academic health: The role of innovative faculty management. *Academic Medicine, 70,* 1073-1078.

Association of American Medical Colleges. (1996). Increasing women's leadership in academic medicine. *Academic Medicine, 71,* 800-811.

Astin, H. S., & Cress, C. M. (1998). *Transforming the academy: Academic women lead the way as teachers and citizens.* Paper presented at an invitational conference sponsored by the Committee for the Equality of Women at Harvard. Boston, MA.

Banaji, M. R., & Greenwald, A. G. (1995a). Implicit gender stereotyping in judgments of fame. *Journal of Personality and Social Psychology, 68,* 181-198.

Banaji, M. R., & Greenwald, A. G. (1995b). Implicit stereotyping and prejudice. In M. P. Zanna & J. M. Olson (Eds.), *The psychology of prejudice: The Ontario Symposium* (Vol. 7, pp. 55-76). Hillsdale, NJ: Erlbaum.

Basow, S. A. (1995). Student evaluations of college professors: When gender matters. *Journal of Educational Psychology, 87,* 656-665.

Basow, S. A. (1998). Student evaluations: The role of gender bias and teaching styles. In L. H. Collins, J. C. Chrisler, & K. Quina (Eds.), *Career strategies for women in academe: Arming Athena* (pp. 135-156). Thousand Oaks, CA: Sage.

Basow, S. A., & Silberg, N. T. (1987). Student evaluations of college professors: Are female and male professors rated differently? *Journal of Educational Psychology, 79,* 308-314.

Bem, S. L. (1981). Gender schema theory: A cognitive account of sex typing. *Psychological Review, 88,* 354-364.

Bennett, S. (1982). Student perceptions of and expectations for male and female instructors: Evidence relating to the question of gender bias in teaching evaluation. *Journal of Educational Psychology, 74,* 170-179.

Bernal, M. (1988). Martha Bernal, 1931- (Autobiography). In A. N. O'Connell & N. F. Russo (Eds.), *Models of achievement: Reflections of eminent women in psychology* (pp. 261-276). Hillsdale, NJ: Erlbaum.

Bernstein, B., & Burke, L. (1995). *Report on student evaluations of female and male faculty at Arizona State University.* Tempe, AZ: Arizona State University Graduate College.

Beyer, S., & Bowden, E. M. (1997). Gender differences in self-perceptions: Convergent evidence from three measures of accuracy and bias. *Personality and Social Psychology Bulletin, 23,* 157-172.

Bickel, J. (1995). Scenarios for success—Enhancing women physicians' professional advancement. *Western Journal of Medicine, 162,* 165-169.

Biernat, M., Crandall, C. S., Young, L. V., Kobrynowicz, D., & Halpin, S. M. (1998). All that you can be: Stereotyping of self and others in a military context. *Journal of Personality and Social Psychology, 75,* 301-317.

Biernat, M., & Kobrynowicz, D. (1997). Gender- and race-based standards of competence: Lower minimum standards but higher ability standards for devalued groups. *Journal of Personality and Social Psychology, 72,* 544-557.

Blair, I. V., & Banaji, M. R. (1996). Automatic and controlled process in stereotype priming. *Journal of Personality and Social Psychology, 70,* 1142-1163.

Bone, J. (1997). Women and the ethics of leadership in higher education. In H. Eggins (Ed.), *Women as leaders and managers in higher education* (pp. 17-27). Bristol, UK: Society for Research into Higher Education & Open University Press.

Bowman, S. R., Kite, M. E., Branscombe, N. R., & Williams, S. (1999). Developmental relationships of Black Americans in the academy. In A. J. Murrell, F. J. Crosby, & R. J. Ely (Eds.), *Mentoring dilemmas: Developmental relationships within multicultural organizations* (pp. 21-46). Hillsdale, NJ: Erlbaum.

Boyer, E. L. (1990). *Scholarship reconsidered: Priorities of the professoriate.* Princeton, NJ: Carnegie Foundation for the Advancement of Teaching.

Bronstein, P. A., & Paludi, M. (1988). The introductory psychology course from a broader human perspective. In P. A. Bronstein & K. Quina (Eds.), *Teaching a psychology of people: Resources for gender and sociocultural awareness* (pp. 21-36). Washington, DC: American Psychological Association.

Brooks, V. R. (1982). Sex differences in student dominance behavior in female and male professors' classrooms. *Sex Roles, 8,* 683-690.

Brown, R. P., & Josephs, R. A. (1999). A burden of proof: Stereotype relevance and gender differences in math performance. *Journal of Personality and Social Psychology, 76,* 246-257.

Bryan, A. I., & Boring, E. G. (1946). Women in American psychology: Factors affecting their professional careers. *American Psychologist, 2,* 3-20.

Butler, D., & Geis, F. L. (1990). Nonverbal affect responses to male and female leaders: Implications for leadership evaluations. *Journal of Personality and Social Psychology, 58,* 48-59.

Caplan, P. (1993). *Lifting a ton of feathers: A woman's guide to surviving in the academic world.* Toronto: University of Toronto Press.

Caplan, P. J., & Caplan, J. B. (1994). *Thinking critically about research on sex and gender.* New York: Harper Collins.

Carli, L. L. (1990). Gender, language, and influence. *Journal of Personality and Social Psychology, 59,* 941-951.

Carli, L. L., LaFleur, S. J., & Loeber, C. C. (1995). Nonverbal behavior, gender, and influence. *Journal of Personality and Social Psychology, 68,* 1030-1041.

Carnegie Foundation for the Advancement of Teaching. (1990, September/October). Women faculty excel as campus citizens. *Change, 22,* 39-43.

Cattell, J. M. (1909). The school and the family. *Popular Science Monthly, 74,* 84-95.

Centra, J. A. (1993). *Reflective faculty evaluation: Enhancing teaching and determining faculty effectiveness.* San Francisco: Jossey-Bass.

Chin, J. L., & Russo, N. F. (1997). Feminist curriculum development: Principles and resources. In J. Worell & N. G. Johnson (Eds.), *Shaping the future of feminist psychology: Education, research, & practice* (pp. 93-120). Washington, DC: American Psychological Association.

Chow, E. (1987). The development of feminist consciousness among Asian American women. *Gender and Society, 1,* 284-299.

Chrisler, J. (1998). Teacher versus scholar: Role conflict for women? In L. H. Collins, J. C. Chrisler, & K. Quina (Eds.), *Career strategies for women in academe: Arming Athena* (pp. 107-134). Thousand Oaks, CA: Sage.

Cohen, A. G., & Gutek, B. A. (1991). Sex differences in the career experiences of members of two APA divisions. *American Psychologist, 46,* 1292-1298.

Cole, J. R., & Zuckerman, H. (1984). The productivity puzzle: Persistence and change in patterns of publication of men and women scientists. *Advances in Motivation and Achievement, 2,* 217-258.

Conti, N. E., & Kimmel, E. B. (1993). Gender and cultural diversity bias in developmental textbooks. In *Resources in education.* (ERIC/CASS Reproduction Service No. ED 359 478).

Crawford, M., & Kimmel, E. (Eds.). (1999a). Innovations in feminist research [Special issue, Part 1]. *Psychology of Women Quarterly, 23*(1).

Crawford, M., & Kimmel, E. (Eds.). (1999b). Promoting methodological diversity in feminist research [Special issue, Part 2]. *Psychology of Women Quarterly, 23*(2).

Crawford, M., & MacLeod, M. (1990). Gender in the college classroom: An assessment of the "chilly climate" for women. *Sex Roles, 23,* 101-122.

Croizet, J., & Claire, T. (1998). Extending the concept of stereotype threat to social class: The intellectual underperformance of students from low socioeconomic backgrounds. *Personality and Social Psychology Bulletin, 24,* 588-594.

Crosby, F. (1982). *Relative deprivation and working women.* New York: Oxford University Press.

d'Apollonia, S., & Abrami, P. C. (1997). Navigating student ratings of instruction. *American Psychologist, 52,* 1198-1208.

Darwin, C. (1967). *The descent of man.* New York: Modern Library. (Original work published 1859).

Davis, C., Ginorio, A. B., Hollenshead, C. S., Lazarus, B. B., Rayman, P. M., & Associates (1996). *The equity equation.* San Francisco: Jossey-Bass.

Davison, H. K., & Burke, M. J. (in press). Sex discrimination in simulated employment contexts: A meta-analytic investigation. *Journal of Vocational Behavior.*

Deaux, K., & Major, B. (1987). Putting gender into context: An interactive model of gender-related behavior. *Psychological Review, 94,* 369-389.

Denmark, F. L. (1994). Engendering psychology. *American Psychologist, 49,* 329-334.

Denmark, F. L., Russo, N. F., Frieze, I. H., & Sechzer, J. A. (1988). Guidelines for avoiding sexism in psychological research. *American Psychologist, 43,* 582-585.

Dovidio, J. F., Keating, C. F., Heltman, K., Ellyson, S. L., & Brown, C. E. (1988). The relationship of social power to visual displays of dominance between men and women. *Journal of Personality and Social Psychology, 54,* 233-242.

Dumas, R. (1980). Dilemmas of Black females in leadership. In L. Rodgers-Rose (Ed.), *The Black woman* (pp. 203-215). Beverly Hills, CA: Sage.

Eagly, A. H., & Johnson, B. T. (1990). Gender and leadership style: A meta-analysis. *Psychological Bulletin, 108,* 233-256.

Eagly, A. H., Karau, S. J., & Makhijani, M. G. (1995). Gender and the effectiveness of leaders: A meta-analysis. *Psychological Bulletin, 117,* 125-145.

Eagly, A. H., Makhijani, M. G., & Klonsky, B. G. (1992). Gender and the evaluation of leaders: A meta-analysis. *Psychological Bulletin, 111,* 3-22.

Fairweather, J. S. (1996). *Faculty work and public trust.* Boston: Allyn and Bacon.

Feldman, K. A. (1984). Class size and college students' evaluations of teachers and courses: A closer look. *Research in Higher Education, 21,* 45-116.

Feldman, K. (1993). College students' views of male and female college teachers: Part II—Evidence from students' evaluations of their classroom teachers. *Research in Higher Education, 34,* 151-211.

Fiske, S. T. (1998). Interpersonal power: New principles of stereotypes and stereotyping. In *Psychological Science Agenda,* July/August, 8-10. Washington, DC: American Psychological Association.

Fiske, S. T., Bersoff, D. N., Borgida, E., Deaux, K., & Heilman, M. E. (1991). Social science research on trial: Use of sex stereotyping research in Price Waterhouse v. Hopkins. *American Psychologist, 46,* 1049-1060.

Fitzgerald, L. F., Weitzman, L., Gold, Y., & Ormerod, M. (1988). Academic harassment: Sex and denial in scholarly garb. *Psychology of Women Quarterly, 12,* 329-340.

Fouad, N. (1995). Career behavior of Hispanics: Assessment and career intervention. In F. Leong (Ed.), *Career development and vocational behavior of racial and ethnic minorities* (pp. 165-191). Hillsdale, NJ: Erlbaum.

Friedan, B. (1963). *The feminine mystique.* New York: Norton.

Gaff, J. G., & Lambert, L. M. (1996, July/August). Socializing future faculty to the values of undergraduate education. *Change, 28,* 38-45.

Gannon, L., Luchetta, T., Rhodes, K., Pardie, L., & Segrist, D. (1992). Sex bias in psychological research: Progress or complacency? *American Psychologist, 47,* 389-396.

Gilbert, L. A., & Osipow, S. H. (1991). Feminist contributions to counseling psychology. *Psychology of Women Quarterly, 15,* 537-548.

Gilligan, C. (1982). *In a different voice: Psychological theory and women's development.* Cambridge, MA: Harvard University Press.

Ginorio, A. B. (1998). Conceptualizing violence in a participatory classroom: A socially defined identities approach. *Psychology of Women Quarterly, 22,* 77-96.

Glick, P., & Fiske, S. T. (1996). The ambivalent sexism inventory: Differentiating hostile and benevolent sexism. *Journal of Personality and Social Psychology, 70,* 491-512.

Glick, P., Zion, C., & Nelson, C. (1988). What mediates sex discrimination in hiring decisions? *Journal of Personality and Social Psychology, 55,* 178-186.

Goldberg, P. (1968, April). Are some women prejudiced against women? *Transaction, 5,* 28-30.

Gorena, M. (1994). *Hispanic women in higher education administration: Factors that positively influence or hinder advancement to leadership positions.* Unpublished doctoral dissertation, George Washington University.

Grady, K. E. (1981). Sex bias in research design. *Psychology of Women Quarterly, 5,* 628-636.

Greenwald, A. G., & Gillmore, G. M. (1997). Grading leniency is a removable contaminant of student ratings. *American Psychologist, 52,* 1209-1217.

Guthrie, R. (1976). *Even the rat was white.* New York: Harper & Row.

Haddock, G., & Zanna, M. P. (1994). Preferring "housewives" to "feminists": Categorization and the favorability of attitudes toward women. *Psychology of Women Quarterly, 18,* 25-52.

Haignere, L., Lin, Y., Eisenberg, B., & McCarthy, J. (1996). *Pay checks: A guide to achieving salary equity in higher education.* Albany, NY: United University Professions.

Hall, R. M., & Sandler, B. (1982). *The classroom climate: A chilly one for women? Project on the status and education of women.* Washington, DC: Association of American Colleges.

Halpern, D. (1998, August). *Designing the 21st century university: Pedagogy, technology, and life-long learning.* Presidential Address for the Society of the Teaching of Psychology, presented at the annual convention of the American Psychological Association, San Francisco.

Halpern, D. F., Smothergill, D. W., Allen, M., Baker, S., Baum, C., Best, D., Ferrari, J., Geisinger, K. F., Gilden, E. R., Hester, M., Keith-Spiegel, P., Kierniesky, N. C., McGovern, T. V., McKeachie, W. J., Prokasy, W. F., Szuchman, L. T., Vasta, R., & Weaver, K. A. (1998). Scholarship in psychology: A paradigm for the twenty-first century. *American Psychologist, 53,* 1292-1297.

Heidbreder, E. (1933). *Seven psychologies.* New York: Appleton-Century.

Hogan, J. D., & Sexton, V. S. (1991). Women and the American Psychological Association. *Psychology of Women Quarterly, 15,* 623-634.

Hyde, J. S. (1996). *Half the human experience: The psychology of women* (5th ed.). Boston: Houghton-Mifflin.

Hymowitz, C., & Weissman, M. (1978). *A history of women in America.* New York: Bantam Books.

Jacklin, C. N., & McBride-Chang, C. (1991). The effects of feminist scholarship on developmental psychology. *Psychology of Women Quarterly, 15,* 549-556.

Kaschak, E. (1978). Sex bias in student evaluations of college professors. *Psychology of Women Quarterly, 2,* 235-243.

Kaschak, E. (1981). Another look at sex bias in students' evaluations of professors: Do winners get the recognition that they have been given? *Psychology of Women Quarterly, 5,* 767-772.

Kierstead, D., D'Agostino, P., & Dill, H. (1988). Sex role stereotyping of college professors: Bias in students' ratings of instructors. *Journal of Educational Psychology, 80,* 342-344.

Kimmel, E., & Worell, J. (1997). Preaching what we practice: Principles and strategies of feminist pedagogy. In J. Worell & N. G. Johnson (Eds.), *Shaping the future of feminist psychology: Education, research, and practice* (pp. 121-153). Washington, DC: American Psychological Association.

Kite, M. E., & Balogh, D. W. (1997). Warming trends: Improving the chilly campus climate. In N. V. Benokraitis (Ed.), *Subtle sexism: Current practice and prospects for change* (pp. 264-278). Thousand Oaks, CA: Sage.

Koss, M. P., Gidycz, C. A., & Wisniewski, N. (1987). The scope of rape: Incidence and prevalence of sexual aggression and victimization in a national sample of higher education students. *Journal of Consulting and Clinical Psychology, 55,* 162-170.

Koss, M. P., Goodman, L. A., Browne, A., Fitzgerald, L. F., Russo, N. F., & Keita, G. P. (1994). *No safe haven: Male violence against women at home, at work, and in the community.* Washington, DC: American Psychological Association.

Landrine, H. (Ed.). (1997). *Bringing cultural diversity to feminist psychology.* Washington, DC: American Psychological Association.

Leong, F., & Serafica, F. (1995). Career development of Asian Americans: A research area in need of a good theory. In F. Leong (Ed.), *Career development and vocational behavior of racial and ethnic minorities* (pp. 67-102). Hillsdale, NJ: Erlbaum.

Levy, P. (1982). Surviving in a predominantly male institution. In S. Vartuli (Ed.), *The Ph.D. experience* (pp. 54-56). New York: Praeger.

Lewin, M., & Wild, C. L. (1991). The impact of the feminist critique on tests, assessment, and methodology. *Psychology of Women Quarterly, 15,* 581-596.

Lips, H. M. (1999). *A new psychology of women: Gender, culture, and ethnicity.* Mountain View, CA: Mayfield.

MacDonald, T. K., & Zanna, M. P. (1998). Cross-dimension ambivalence toward social groups: Can ambivalence affect intentions to hire feminists? *Personality and Social Psychology Bulletin, 24,* 427-441.

Macias, M. (1994). *Barriers to promotion of Hispanic women for administrative positions in institutions of higher learning.* Unpublished doctoral dissertation, Northern Arizona University.

Madden, M., & Hyde, J. S. (Eds.). (1998). Integrating gender and ethnicity into psychology courses [Special issue]. *Psychology of Women Quarterly, 22*(1).

Madden, M., & Russo, N. F. (1997). *Women in the curriculum: Psychology.* Towson, MD: National Center for Curriculum Transformation Resources on Women.

Malamuth, N. M., Sockloskie, R. J., Koss, M. P., & Tanaka, J. S. (1991). Characteristics of aggressors against women: Testing a model using a national sample of college students. *Journal of Consulting and Clinical Psychology, 59,* 670-681.

Marecek, J., & Hare-Mustin, R. T. (1991). A short history of the future: Feminism and clinical psychology. *Psychology of Women Quarterly, 15,* 521-536.

Marsh, H. (1982). SEEQ: A reliable, valid, and useful instrument for collecting students' evaluations of university teaching. *British Journal of Educational Psychology, 52,* 77-95.

Marsh, H. W., & Roche, L. A. (1997). Making students' evaluations of teaching effectiveness effective. *American Psychologist, 52,* 1187-1197.

Marsh, H. W., & Ware, J. E., Jr. (1982). Effects of expressiveness, content coverage, and incentive on multidimensional student rating scales: New interpretations of the Dr. Fox effect. *Journal of Educational Psychology, 74,* 126-134.

Martell, R. F., Lane, D. M., & Emrich, C. (1996). Male-female differences: A computer simulation. *American Psychologist, 51,* 157-158.

Massachusetts Institute of Technology. (1999). *A study on the status of women faculty in science at MIT.* Cambridge, MA: Author. (Retrieved from http://web.mit.edu/fnl/women/women.html)

McHugh, M. C., Koeske, R. D., & Frieze, I. H. (1986). Issues to consider in conducting nonsexist psychological research: A guide for researchers. *American Psychologist, 41,* 879-890.

McKeachie, W. J. (1987). Tips on teaching. In M. P. Zanna & J. M. Darley (Eds.), *The compleat academic: A practical guide for beginning social scientists* (pp. 87-113). New York: Random House.

McKeachie, W. J. (1994). *Teaching tips: Strategies and theory for the college and university teachers* (9th ed.). Lexington, MA: Heath.

McKeachie, W. J. (1997). Student ratings: The validity of use. *American Psychologist, 52,* 1218-1225.

Meyers, S. A., Reid, P. T., & Quina, K. (1998). Ready or not, here we come: Preparing psychology graduate students for academic careers. *Teaching of Psychology, 25,* 124-126.

Morawski, J., & Agronick, G. (1991). A restive legacy: The history of feminist work in experimental and cognitive psychology. *Psychology of Women Quarterly, 15,* 567-580.

Murray, H. G., Rushton, J. P., & Paunonen, S. V. (1990). Teacher personality traits and student instructional ratings in six types of university courses. *Journal of Educational Psychology, 82,* 250-261.

Murrell, A. J., & Tangri, S. S. (1999). Mentoring at the margins. In A. J. Murrell, F. J. Crosby, & R. J. Ely (Eds.), *Mentoring dilemmas: Developmental relationship within multicultural organizations* (pp. 211-224). Mahwah, NJ: Erlbaum.

National Center on Educational Statistics. (1993). *1993 National study of postsecondary faculty.* CDROM restricted use faculty and institution files. Washington, DC: Author.

National Research Council. (1998). *Survey of earned doctorates: Prepublication tables from the Summary Report 1997: Doctorate recipients from U.S. universities.* Chicago: National Opinion Research Center.

National Science Foundation. (1982). *Women and minorities in science and engineering.* Washington, DC: Author.

Niemann, Y. F., Jennings, L., Rozelle, R. M., Baxter, J. C., & Sullivan, E. (1994). Use of free response and cluster analysis to determine stereotypes of eight groups. *Personality and Social Psychology Bulletin, 20,* 379-390.

O'Connell, A. N., & Russo, N. F. (1980). Models for achievement: Eminent women in psychology. *Psychology of Women Quarterly, 5,* 6-10.

O'Connell, A. N., & Russo, N. F. (Eds.). (1983). *Models of achievement: Reflections of eminent women in psychology.* New York: Columbia University Press.

O'Connell, A. N., & Russo, N. F. (Eds.). (1988). *Models of achievement: Reflections of eminent women in psychology, Volume II.* New York: Lawrence Erlbaum.

O'Connell, A. N., & Russo, N. F. (Eds.). (1990). *Women in psychology: A bio-bibliographical sourcebook.* Westport, CN: Greenwood Press.

O'Connell, A. N., & Russo, N. F. (Eds.). (1991). Women's heritage in psychology: Origins, development, and future directions [Special issue]. *Psychology of Women Quarterly, 15*(4).

Park, S. M. (1996). Research, teaching and service. *Journal of Higher Education, 67,* 46-84.

Peterson, S. B., & Kroner, T. (1992). Gender biases in textbooks for introductory psychology and human development. *Psychology of Women Quarterly, 16,* 17-36.

Powney, J. (1997). In H. Eggins (Ed.), *Women as leaders and managers in higher education* (pp. 49-62). Buckingham, England, and Bristol, PA: Society for Research Into Higher Education & Open Press.

Reid, P. T. (1994). The real problem in the study of culture. *American Psychologist, 49,* 524-525.

Reinharz, S. (1992). *Feminist methods in social research.* New York: Oxford University Press.

Ross, M., & Green, M. (1998). *The American college president* (1998 ed.). Washington, DC: American Council on Education.

Rossiter, M. W. (1982). *Women scientists in America: Struggles and strategies to 1940.* Baltimore, MD: Johns Hopkins University Press.

Rossiter, M. W. (1995). *Women scientists in America: Before affirmative action, 1940-1972.* Baltimore, MD: Johns Hopkins University Press.

Rowe, M. (1990). Barriers to equality: The power of subtle discrimination to maintain unequal opportunity. *Employee Responsibilities and Rights Journal, 3,* 153-163.

Rudman, L. A. (1998). Self-promotion as a risk factor for women: The costs and benefits of counterstereotypical impression management. *Journal of Personality and Social Psychology, 74,* 629-645.

Ruggiero, K. M., & Taylor, D. M. (1995). Coping with discrimination: How disadvantaged group members perceive the discrimination that confronts them. *Journal of Personality and Social Psychology, 68,* 826-835.

Rusher, A. (1996). *African American women administrators.* Lanham, MD: University Press of America.

Russo, N. F. (1983). Psychology's foremothers: Their achievements in context. In A. N. O'Connell & N. F. Russo (Eds.), *Models of achievement: Reflections of eminent women in psychology* (pp. 9-24). New York: Columbia University Press.

Russo, N. F. (1988). Women in psychology: Reflecting and shaping the social context. In A. N. O'Connell & N. F. Russo (Eds.), *Models of achievement: Reflections of eminent women in psychology* (pp. 9-27). Hillsdale, NJ: Erlbaum.

Russo, N. F. (1999). Commentary: Putting the APA *Publication Manual* in context. *Psychology of Women Quarterly, 23,* 399-402.

Russo, N. F., & duMont, A. (1997). Division 35: Origins, activities, future. In D. Dewsbury (Ed.), *A history of divisions in the American Psychological Association* (pp. 211-238). Washington, DC: American Psychological Association.

Russo, N. F., & O'Connell A. N. (1980). Models from our past: Psychology's foremothers. *Psychology of Women Quarterly,* 5, 11-54.

Sandler, B. R. (1992). *Success and survival strategies for women faculty members.* Washington, DC: Association of American Colleges.

Scott, M. E. (1992). Designing effective mentoring programs: Historical perspectives and current issues. *Journal of Humanistic Education and Development, 30,* 167-175.

Sears, R. R. (1975). *Your ancients revisited: A history of child development.* Chicago, IL: University of Chicago Press.

Selby, J. W., & Calhoun, L. G. (1998). Mentoring programs for new faculty: Unintended consequences? *Teaching of Psychology, 25,* 210-211.

Shields, S. A. (1975). Functionalism, Darwinism, and the psychology of women: A study of social myth. *American Psychologist, 30,* 739-754.

Spence, J. T., & Hahn, E. D. (1997). The Attitudes Toward Women Scale and attitude change in college students. *Psychology of Women Quarterly, 21,* 17-34.

Spencer, S. S., Fein, S., Wolfe, C. T., Fong, C., & Dunn, M. A. (1998). Automatic activation of stereotypes: The role of self-image threat. *Personality and Social Psychology Bulletin, 24,* 1139-1152.

Statham, A., Richardson, L., & Cook, J. A. (1991). *Gender and university teaching: A negotiated difference.* Albany, NY: State University of New York Press.

Steele, C. M. (1997). A threat in the air: How stereotypes shape intellectual identity and performance. *American Psychologist, 52,* 613-629.

Steele, C. M., & Aronson, J. (1995). Stereotype threat and the intellectual test performance of African Americans. *Journal of Personality and Social Psychology, 69,* 797-811.

Swim, J. K., Aikin, K. J., Hall, W. S., & Hunter, B. S. (1995). Sexism and racism: Old-fashioned and modern prejudices. *Journal of Personality and Social Psychology, 68,* 199-214.

Swim, J., Borgida, E., Maruyama, G., & Myers, D. G. (1989). Joan McKay versus John McKay: Do gender stereotypes bias evaluations? *Psychological Bulletin, 105,* 409-429.

Swim, J. K., & Cohen, L. L. (1997). Overt, covert, and subtle sexism: A comparison between the attitudes toward women and modern sexism scales. *Psychology of Women Quarterly, 21,* 103-118.

Taylor, S. E. (1997). Distinguished Scientific Contribution Award. *American Psychologist, 52,* 312-314.

Tice, S. L. (1997). The relationships between faculty preparation programs and teaching assistant development programs. In *[Preparing future faculty papers].* Washington, DC: Association of American Colleges and Universities and Council of Graduate Schools.

Tiefer, L. (1991). A brief history of the Association for Women in Psychology: 1969-1991. *Psychology of Women Quarterly, 15,* 635-649.

Tougas, F., Brown, R., Beaton, A. M., & Joly, S. (1995). Neosexism: Plus ca change, plus c'est pareil. *Personality and Social Psychology Bulletin, 21,* 842-849.

Twale, D. J., & Shannon, D. M. (1996). Professional service involvement of leadership faculty: An assessment of gender, role, and satisfaction. *Sex Roles, 34,* 117-126.

Twenge, J. M. (1997). Attitudes toward women, 1970-1995: A meta-analysis. *Psychology of Women Quarterly, 21,* 35-51.

Unger, R. K., & Crawford, M. (1992). *Women and gender: A feminist psychology.* New York: McGraw-Hill.

U.S. Department of Education. (1991). *Profiles of faculty in higher education institutions, 1988.* Washington, DC: National Center on Educational Statistics.

Valian, V. (1998). *Why so slow? The advancement of women.* Cambridge, MA: MIT Press.

Walton, K. D. (1997). UK women at the very top: An American assessment. In H. Eggins (Ed.), *Women as leaders and managers in higher education* (pp. 70-90). Buckingham, England, and Bristol, PA: Society for Research into Higher Education & Open University Press.

Welter, B. (1966). "The cult of true womanhood." *American Quarterly, 18,* 151-174.

Wenneras, C., & Wold, A. (1997). Nepotism and sexism in peer review. *Nature, 387,* 341-343.

Whitten, L. A. (1993). Infusing Black psychology into the introductory psychology course. *Teaching of Psychology, 20,* 13-21.

Wicherski, M., Guerrero, R., & Kohout, J. (1999). *1998-1999 Faculty salaries in graduate departments of psychology.* Washington, DC: American Psychological Association.

Wicherski, M., & Kohout, J. (1993). *1992-1993 Faculty salaries in graduate departments of psychology.* Washington, DC: American Psychological Association.

Winocur, S., Schoen, L. G., & Sirowatka, A. H. (1989). Perceptions of male and female academics within a teaching context. *Research in Higher Education, 30,* 317-329.

Witmer, J. (1995). *Moving up: A guidebook for women in educational administration.* Lancaster, PA: Technomic.

Woolley, H. T. (1910). Psychological literature: A review of the recent literature on the psychology of sex. *Psychological Bulletin, 7,* 335-342.

Xie, Y., & Shauman, K. A. (1998). Sex differences in research productivity: New evidence about an old puzzle. *American Sociological Review, 63,* 847-870.

Yoder, J. D. (1985). An academic woman as a token: A case study. *Journal of Social Issues, 41,* 61-72.

Yoder, J. (1999). *Women and gender: Transforming psychology.* Upper Saddle River, NJ: Prentice-Hall.

Appendix A: A Brief History of Women Faculty in Psychology

Understanding the opportunities and obstacles for women in psychology requires an appreciation for how the larger context shapes the contexts and careers of individuals. At the end of the 19th Century, a time when psychology was a newly emerging science, pervasive gender stereotypes shaped educational and employment opportunities for women. Known as the "cult of true womanhood" (Welter, 1966), a conception of femininity as pious, pure, domestic, and submissive was used to justify a societal division of labor congruent with gender stereotypes. As historian Margaret Rossiter (1982, 1995) observed, women in psychology, like all women in science of the time, were caught between two conflicting classes of stereotypes. First were the stereotypes of women that "linked and limited them to soft, delicate, emotional, noncompetitive, and nurturing kinds of feelings and behavior" (Rossiter, 1982, p. xv). Second, there were the stereotypes of scientists as "tough, rigorous, rational, impersonal, masculine, competitive, and unemotional" (Rossiter, 1982, p. xv). Women in psychology had a special relationship to gender bias and stereotypes, however, as the mantle of scientific psychology was used to justify discrimination against them.

As psychological science emerged, psychological theories of female personality and intellect incorporated the myths of gender and race of the time, giving the force of "science" to them. In 1910, pioneering psychologist Helen Thompson Woolley succinctly described the situation with regard to psychology's views of women:

> There is perhaps no field aspiring to be scientific where flagrant personal bias, logic martyred in the cause of supporting a prejudice, unfounded assertions, and even sentimental rot and drivel, have run riot to such an extent as here. (Woolley, 1910, p. 340)

It was a time when leaders such as G. Stanley Hall, the founder of the American Psychological Association, warned that "mental women" competing with men "in the world" would cause "race suicide" as maternal urges became neglected (Shields, 1975). The fourth president of APA, James McKeen Cattell, also warned that higher education would endanger women's ability to perform her motherhood role:

> Girls are injured more than boys by school life; they take it more seriously, and at certain times and at a certain age are far more subject to harm. It is probably not an exaggeration to say that to the average cost of each girl's education through high school must be added one unborn child. (Cattell, 1909, p. 91)

And then, of course, there is Sigmund Freud, whose descriptions of female personality would almost be amusing in today's light were it not for the terrible harm they have done to women. His phallocentric explanation of psychological development reinforced a societal view of women as inferior to and envious of men and jealous of other women. His construction of reports of sexual abuse by their fathers as female fantasies is one of the great outrages in psychology's history.

Psychologists were not the only scientists affected by the myths of time. Charles Darwin, arguably one of the most influential thinkers of the time, used evolution to justify women's subordinate status:

> With women the powers of intuition, of rapid perception, and perhaps of imitation, are more strongly marked than in men; but some, at least, of these faculties are characteristic of the lower races, and therefore of a past and lower state of civilization. The chief distinction in the intellectual powers of the two sexes is shown by man's attaining to a higher eminence, in whatever he takes up, than can women. (Darwin, 1967, pp. 873-874)

As more women entered the field, however, some used their scientific knowledge and skills to challenge gender myths supported by "scientific psychology." From the field's inception, women psychologists have been leaders in using psychological knowledge and skills to challenge the use of psychology to support a sexist status quo (O'Connell & Russo, 1980, 1988, 1990; Shields, 1975). Thus the contributions of feminist researchers to psychology become an important piece of the picture of women's status and roles in academe.

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Sometimes the stereotypes worked to advance opportunities for women in "gender appropriate" domains. Beliefs in women's moral superiority were used to justify women's participation in a wide variety of social reform movement encompassing issues of child labor, prison reform, pure drinking water, free libraries, public sewers, ending prostitution, historic preservation, and peace (Hymowitz & Weissman, 1978). Even equal political rights and better conditions of employment were justified as a means for women to reform society. Women's rights were especially linked to child welfare (Sears, 1975). The confluence of professionalism, progressive education, and child welfare movements engendered a belief in a "professional approach to child care" that was used to argue for women's higher education. As Margaret Rossiter (1982) described:

> The rapid development of secondary and then higher education...came only as the result of a shrewd political and intellectual compromise with the prevailing antifeminism; women might be educated, critics acquiesced, but only if it was for motherhood, their basic role in American society. (p. 313)

Women's colleges flourished, providing one of the few places where it was considered appropriate for women to work in all areas of science. Psychological clinics, child guidance centers, and child welfare institutes emerged, providing places for women psychologists to work in keeping with societal conceptions of women's roles (Russo, 1983, 1988).

As higher education expanded, women began to trickle into all fields of science but were particularly likely to go into fields perceived as congruent with gender stereotypes of the time: botany, sociology, economics, applied chemistry in home economics, and psychology (Rossiter, 1982). Colleges of education and of home economics provided "womanly" alternatives to psychology departments and homes for the newly emerging fields of counseling and school psychology and child development.

Given limited opportunities for employment in traditional psychology departments and widespread stereotyping that produced gender segregation of psychology's subfields, women became leaders and innovators in newly emerging areas of psychology seen at the time as congruent with women's abilities, including mental development and individual differences, educational psychology, child psychology, and animal psychology (Heidbreder, 1933).

As more women earned bachelor's and master's degrees in the sciences, men became concerned that the presence of women would lower their "prestige"—a new addition to the concept of masculinity of the time (Rossiter, 1982, p. 314). They erected a variety of barriers to restrict women to "women's work" and exclude them from academe, including the requirement of a doctoral degree for employment in the nation's universities. Indicators of prestige, such as "Fellow status" in professional associations and various scientific prizes were developed and then differentially awarded by men to men. These indicators could then be used to exclude women from other activities, including academic employment, based on "merit."

One of the lessons to be learned from studying women's history in psychology is the remarkable resilience and flexibility of women who both made the best of their limited options as well as created new ones. Unwelcome in academe, women in psychology (MAs and PhDs) found employment elsewhere, more in keeping with societal concepts of appropriate roles for women. By 1940, women were 30% of psychologists but held 51% of positions in guidance centers, clinics, schools, educational systems, hospitals, and custodial centers. By 1944 the figure was 60% although the proportion of women in the field had remained stable.

Meanwhile, 26% of positions in colleges and universities were held by women (Bryan & Boring, 1946). In the subsequent decades of the 1950s and 1960s (hallmarked by *The Feminine Mystique*, Friedan, 1963), little changed. In 1973, women were one out of every five psychology faculty members, a proportion lower than that found in 1944. It was not until the rise of the women's movement in the 1970s, which grounded its arguments in the importance of the individual, the equality of men and women, and the rejection of gender stereotyping, that the proportions of women began to increase in all of the sciences, including psychology (National Science Foundation, 1982).

Race and ethnicity have erected additional barriers to the full participation of all women psychologists. The curricula in the Black colleges established after the Civil War focused on Black communities' urgent needs, and psychology in those schools focused on applications and became affiliated with education departments. From 1920 to 1950 only 32 doctorates were earned by Black psychologists, eight of them by women (four EdDs and four PhDs). In 1933 Inez Prosser made history by being the first Black woman to earn a doctorate in psychology—an EdD from the University of Cincinnati. In 1934, Ruth Howard (Beckham) became the first Black woman to earn a PhD in psychology (Guthrie, 1976). Unfortunately for academe, these women did not pursue their careers in academic institutions. Information about ethnic minority women is scarce, and little is known about the history of American Indian, Asian American, and Hispanic American women psychologists, inside or outside of academe. It was not until 1962 that Martha Bernal became the first known Mexican American woman to earn a PhD in psychology. She went on to pursue an academic career and became a leader in the newly emerging field of ethnic psychology (Bernal, 1988). The stories of pioneering ethnic foremothers are still being written today as ethnic women advance in their careers and make inroads into positions previously dominated by White males (see O'Connell & Russo, 1983, 1988, 1990, for autobiographies and biographies of some of these pioneers).

In 1970 APA established a Task Force on the Status of Women in 1970 (leading to a continuing Committee on Women in Psychology [CWP] in 1973), which provided a power base for women psychologists to work for change within the discipline (see APA WPO, 1996, for a history of the committee's accomplishments). One of the first efforts of CWP leaders was a successful petition drive to establish a Division of the Psychology of Women (Division 35). Established in 1973, that division provides a power base where feminist psychologists challenge myths and stereotypes and go beyond a reactive stance to generating new theories, methods, and techniques for understanding the development of women and men over the life cycle and in diverse contexts (Russo & duMont, 1997). Ethnic minority women were active leaders in these activities. They have provided powerful critiques of psychology in general and feminist psychology in particular and have been a source of creative energy and insightful vision for the emerging field of the psychology of women (Landrine, 1997).

Because divisions elect members of APA's Council of Representatives (APA's policy-making body), formation of Division 35 enabled women to organize a Women's Caucus of Council, providing a power base for women's issues at APA's highest levels. Today Division 35, the CWP, the Women's Programs Office, the Women's Caucus of Council, and a host of committees and sections on women in other divisions and state associations provide a network of power centers for women's issues within the discipline. One measure of the power and success of the movement is found in the composition of doctorate recipients in 1996: With women receiving 66.7% of all doctorates (including educational and school psychology), psychology had the highest proportion of women of any field—science and nonscience—and one of every seven doctorates earned by a woman was in a field of psychology (NRC, 1998). After nearly a century, women's participation in psychology is no longer an issue, and inroads have been made on gender segregation and salary equity issues. It is now time to focus on compensation more broadly and to develop a more sophisticated vision of issues related to power, status, and equity for women psychologists in academe.

It is important to remember, however, that the status of women psychologists waxes and wanes with the status of women in society, and advances should never be taken for granted. Each generation must confront new challenges while protecting its gains. Inequities persist, and lessons that are not passed down must be painfully relearned. We pay a price for equity, and that price is vigilance.

Appendix B: 1986 and 1996 Accreditation Guidelines Related to Gender Sensitivity

Respect for cultural and individual differences must be imparted to students and reflected in:

- Faculty recruitment
- Faculty promotion
- Student recruitment
- Student evaluation
- Curriculum
- Field training

Diversity of Faculty (an essential goal)

Develop knowledge and skills regarding diversity as:

- Handicapping conditions
- Different ages
- Genders
- Racial and ethnic background
- Religion
- Life styles
- Social and individual backgrounds

**1986: Criterion II.
Cultural and
Individual Differences**

Experienced, productive with career commitment who provide leadership [Editor's note: This was interpreted as needing senior women in the program.]

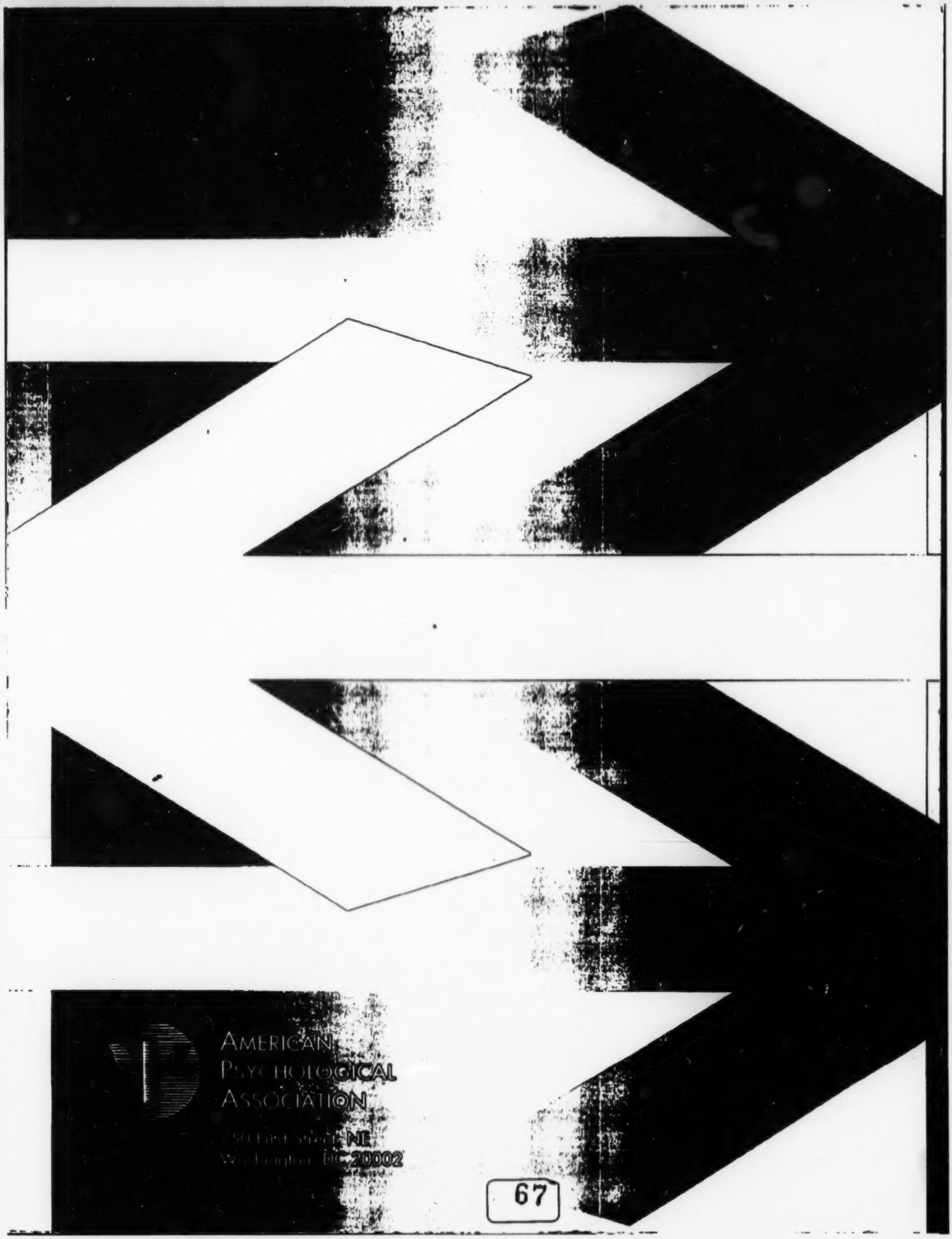
**1986: Criterion IV.
Faculty**

The program recognizes the importance of cultural and individual differences and diversity in the training of psychologists.

1. The program has made systematic, coherent, and long-term efforts to attract and retain students and faculty from differing ethnic, racial, and personal backgrounds into the program. Consistent with such efforts, it acts to ensure a supportive and encouraging learning environment appropriate for the training of diverse individuals and the provision of training opportunities for a broad spectrum of individuals. Further, the program avoids any actions that would restrict program access on grounds that are irrelevant to success in graduate training.

2. The program has and implements a thoughtful and coherent plan to provide students with relevant knowledge and experiences about the role of cultural and individual diversity in psychological phenomena as they related to the science and practice of professional psychology. The avenues by which these goals are achieved are to be developed by the program.

**1996: Domain D:
Cultural and Individual
Differences and Diversity**



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